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SAMSUNG

SERVICE MANUAL

SCD180/VP-D190MS/D190MSi

SAMSUNG

DIGITAL CAMCORDER

SCD180
VP-D190MS/D190MSi

SERVICE Manual

For mechanical disassembly and adjustment, refer to the “Mechanical Manual” (CSM2000 ⟶ AD68-30200A).

DIGITAL CAMCORDER

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1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including :
   control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1) :
   Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle, brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

6. X-ray Limits :
   The picture tube is designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original.

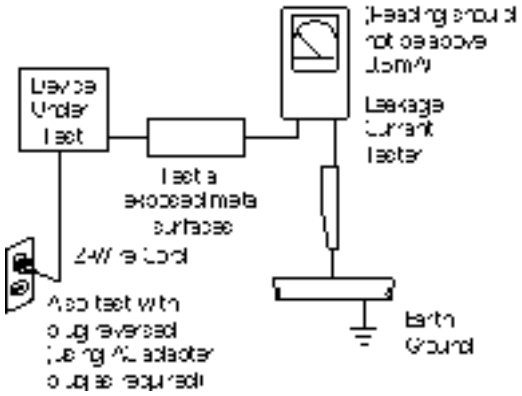


Fig. 1 AC Leakage Test

7. Antenna Cold Check :
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong.
   Connect the other lead to the coaxial connector.

8. High Voltage Limit :
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.

   Heed the high voltage limits. These include the *X-ray protection Specifications Label, and the Product Safety and X-ray Warning Note* on the service data schematic.

9. Some semiconductor ("solid state") devices are easily damaged by static electricity.
   Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors.
   The following techniques will reduce the occurrence of component damage caused by static electricity.

10. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)

11. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

12. Design Alteration Warning :
Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

13. Hot Chassis Warning :
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

To confirm that the AC power plug is inserted correctly, do the following : Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

14. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, *regardless of the AC plug polarity*. These units can be safely serviced *only* if an isolation transformer inserted between the receiver and the power source.

15. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

16. Always connect a test instrument's ground lead to the instrument chassis ground *before* connecting the positive lead; always remove the instrument's ground lead last.

17. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

18. Picture Tube Implosion Warning :
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

19. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

20. Product Safety Notice :
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original--even if the replacement is rated for higher voltage, wattage, etc.

Components that are critical for safety are indicated in the circuit diagram by shading, (or).
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

2. Product Specifications and Comparison Chart

Operation	Description
System	
Video signal	VP-D190MS/D190MSi: PAL, CCIR standards, SCD180: NTSC standards
Video recording system	2 rotary heads, Helical scanning system
Audio recording system	Rotary heads, PCM system
Usable cassette	Digital video tape (6.35mm width): Mini DV cassette
Tape speed	SP: approx. 18.8mm/s LP: approx. 12.5mm/s
Tape recording time	SP: 60 minutes (when using DVM 60), LP: 90 minutes (when using DVM 60)
FF/REW time	Approx. 150 sec. (using DVM60 tape)
Image device	CCD (Charge Coupled Device)
Lens	F1.8 12x(Optical), 480x(Digital) Electronic zoom lens
Filter diameter	Ø37
LCD monitor/Viewfinder	
Size/dot number	2.5inch/200,000
LCD monitor Method	TFT LCD
Viewfinder	VP-D190MS/D190MSi : 0.44” colour LCD, SCD180: 0.24” B/W LCD
Connectors	
Video output	1Vp-p (75Ω terminated)
S-video output	Y: 1Vp-p, 75Ω, C: 0. 286Vp-p, 75Ω
Audio output	-7.5dBs (600Ω terminated)
DV input/output	SCD180/VP-D190MSi: 4pin special in/out connector, VP-D190MS: out only
USB output	Mini-B type connector
External mic	Ø3.5 stereo
General	
Power source	DC 8.4V, Lithium Ion Battery Pack 7.4V
Power source type	Lithium Ion Battery Pack, Power supply (100V~240V) 50/60Hz
Power consumption (Recording)	4.9W(LCD), 3.6W(EVF)
Operating temperature	0˚~40˚C (32˚F~104˚F)
Storage temperature	-20˚C ~ 60˚C (-4˚F ~ 140˚F)
External dimension	Length 104mm, Height 114mm, Width 53.5mm
Weight	480g (Except for Lithium Ion Battery Pack and tape)
Built-in MIC	Omni-directional stereo condenser microphone
Remote control	Indoors: greater than 15m (straight line), Outdoors: greater than 5m (straight line)

⌘ The technical specifications and design may be changed without notice.

MEMO

3. Disassembly and Reassembly

3-1. Cabinet and PCB

3-1-1 Ass'y Case Top Removal

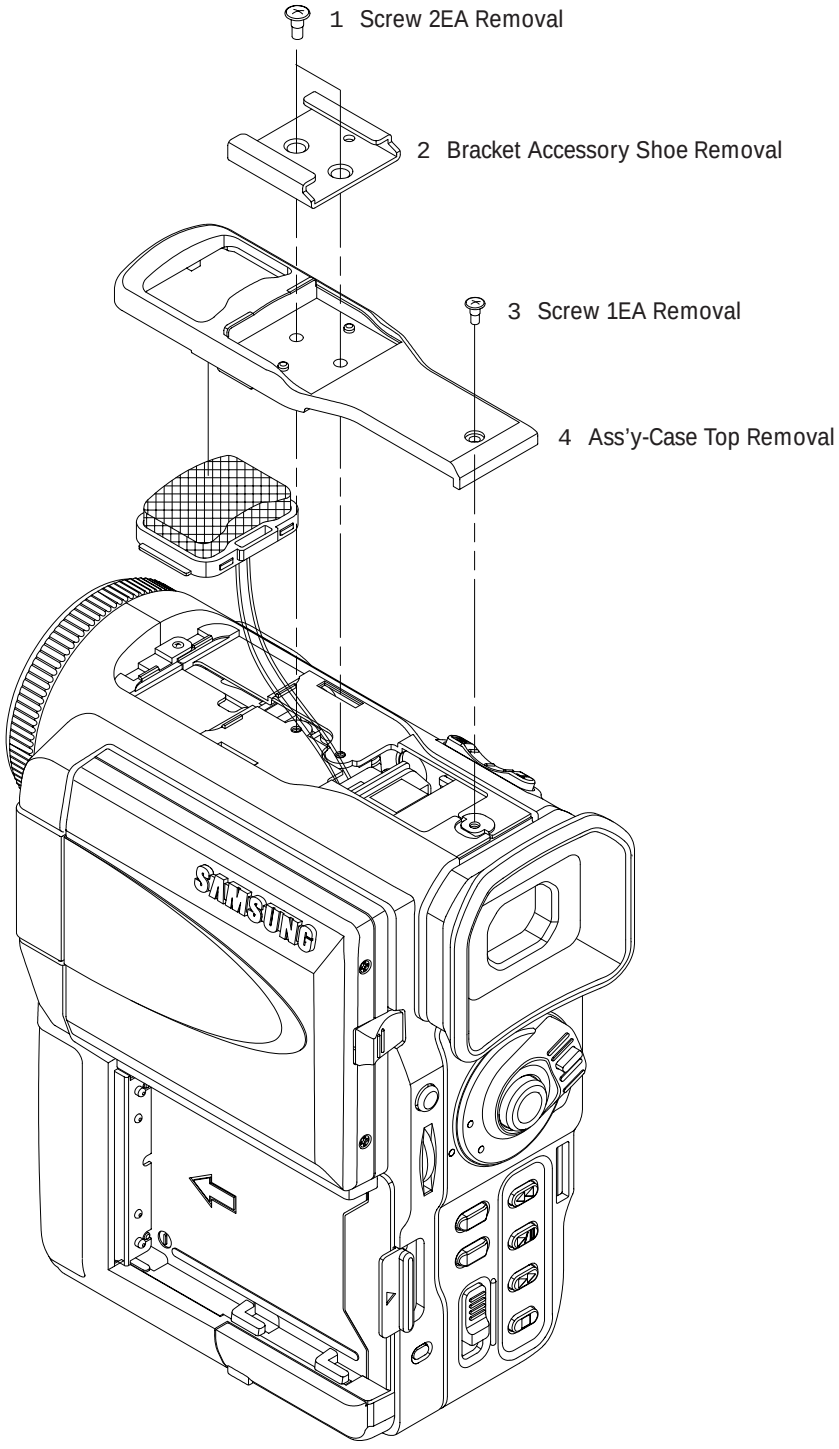


Fig. 3-1 Ass'y Case Top Removal

3-1-2 Ass'y-Case Front Removal

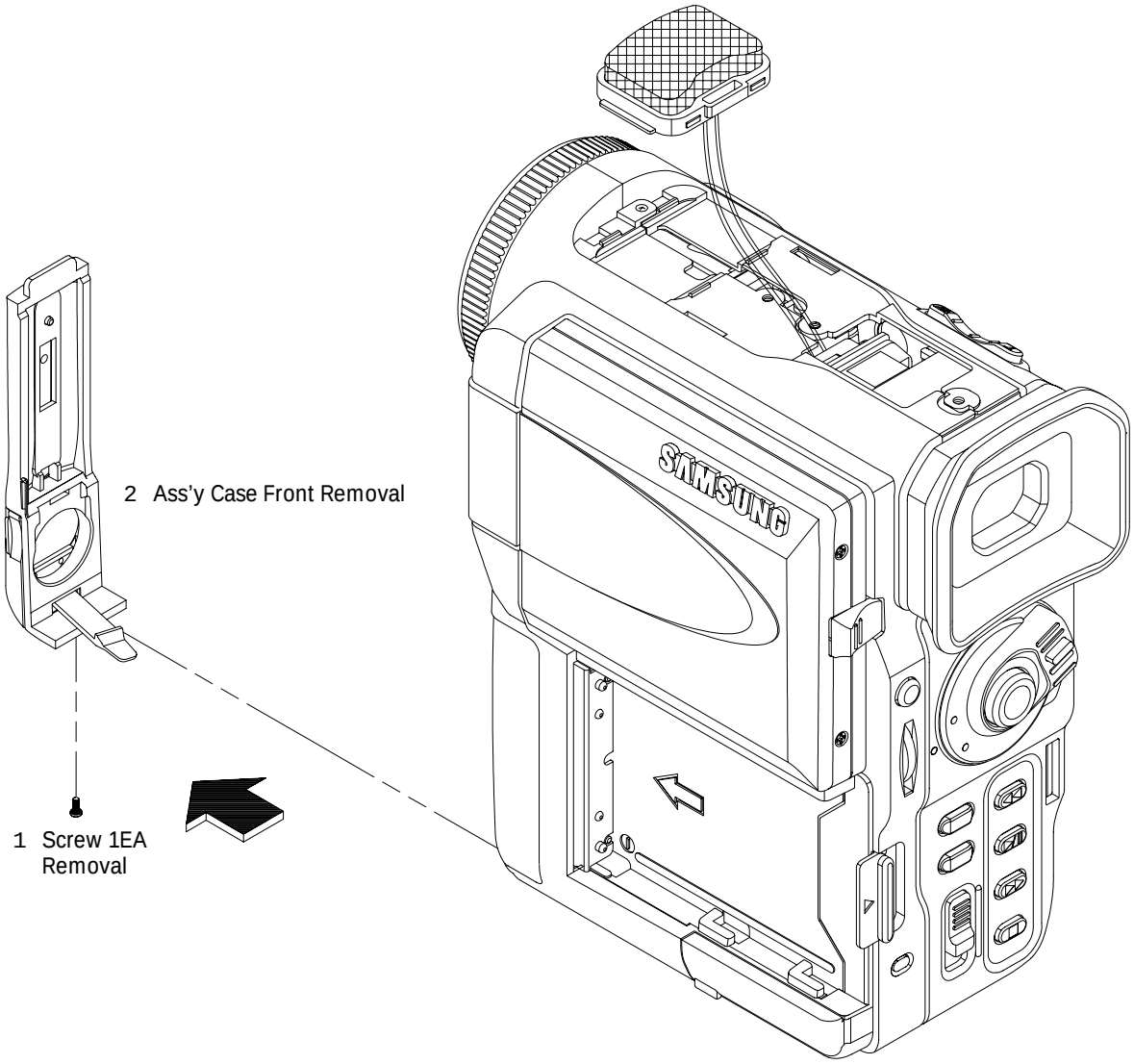


Fig.3-2 Ass'y Case Front Removal

3-1-3 Ass'y Case Left Removal

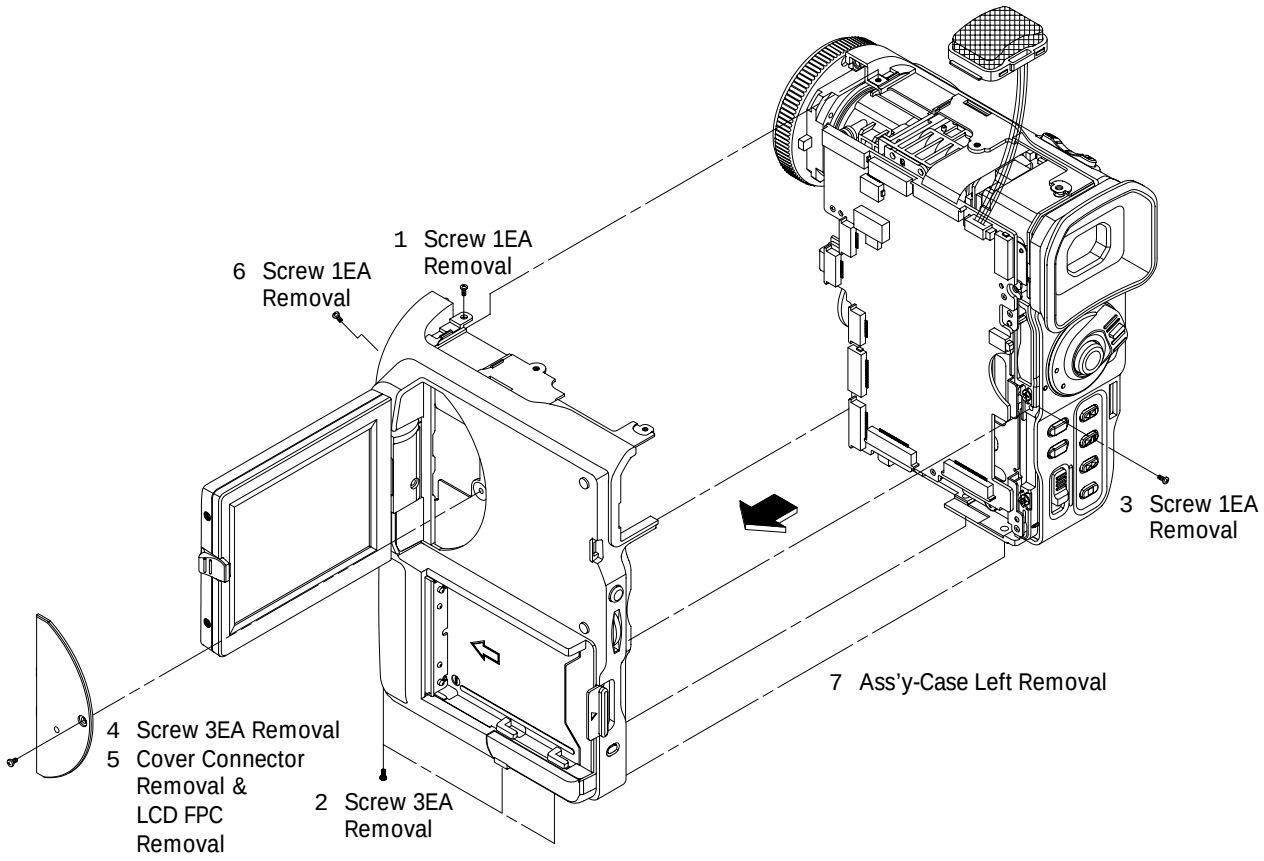

1 Screw 1EA Removal
6 Screw 1EA Removal
3 Screw 1EA Removal
7 Ass'y-Case Left Removal
4 Screw 3EA Removal
5 Cover Connector Removal & LCD FPC Removal
2 Screw 3EA Removal

Fig. 3-3 Ass'y Case Left Removal

3-1-4 Ass'y LCD Removal

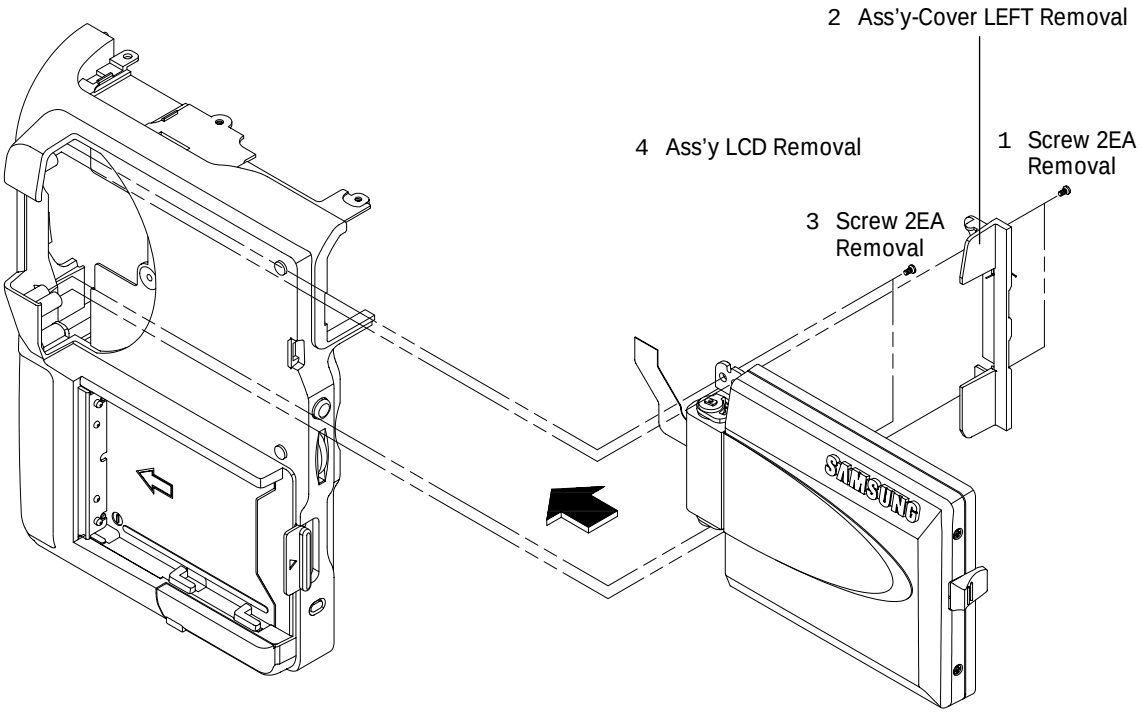


Fig. 3-4 Ass'y LCD Removal

3-1-5 Ass'y Right Removal

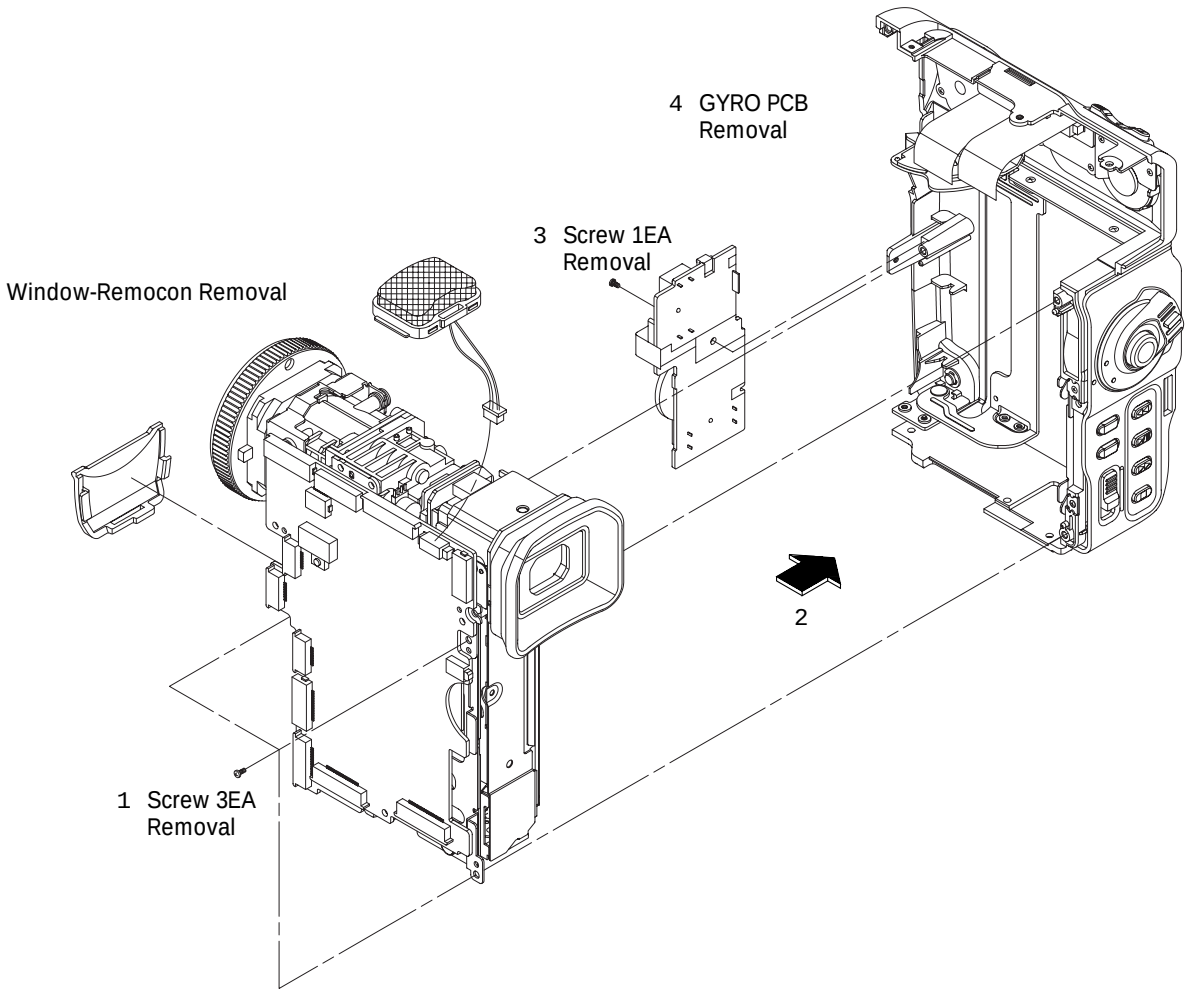


Fig. 3-5 Ass'y Right Removal

3-1-6 Ass'y Right(2) Removal

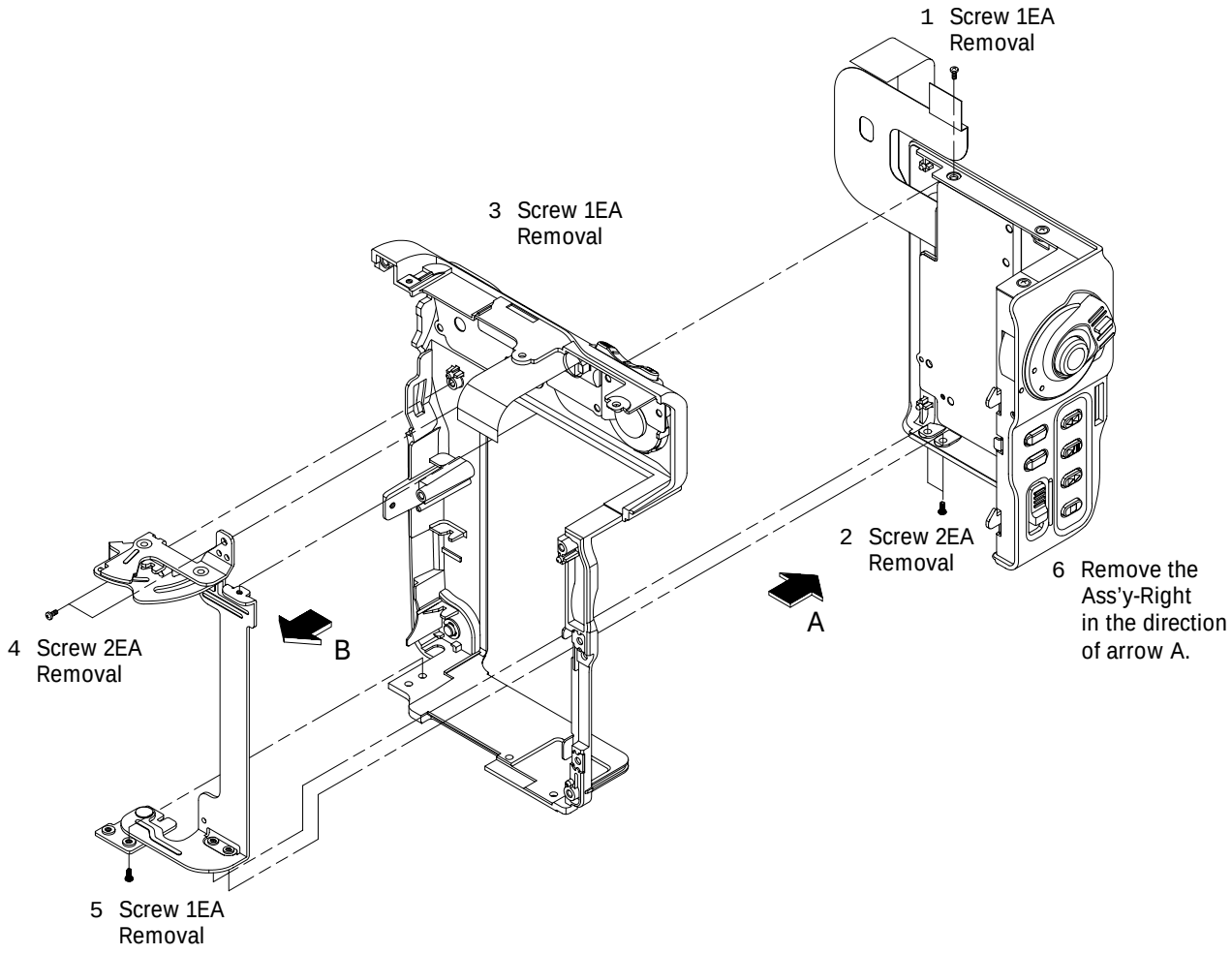


Fig. 3-6 Ass'y Right(2) Removal

3-1-7 Ass'y EVF Removal

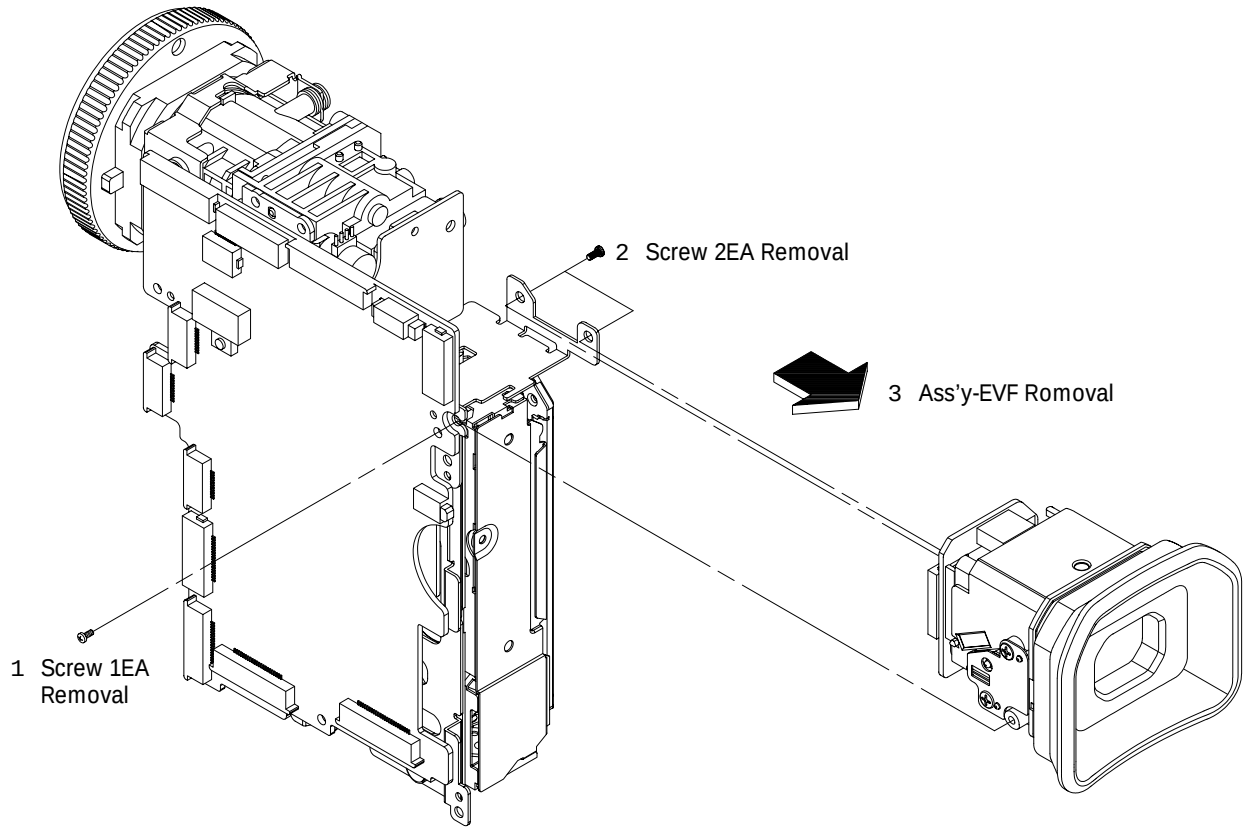


Fig. 3-7 Ass'y EVF Removal

3-1-8 Ass'y Main PCB Removal

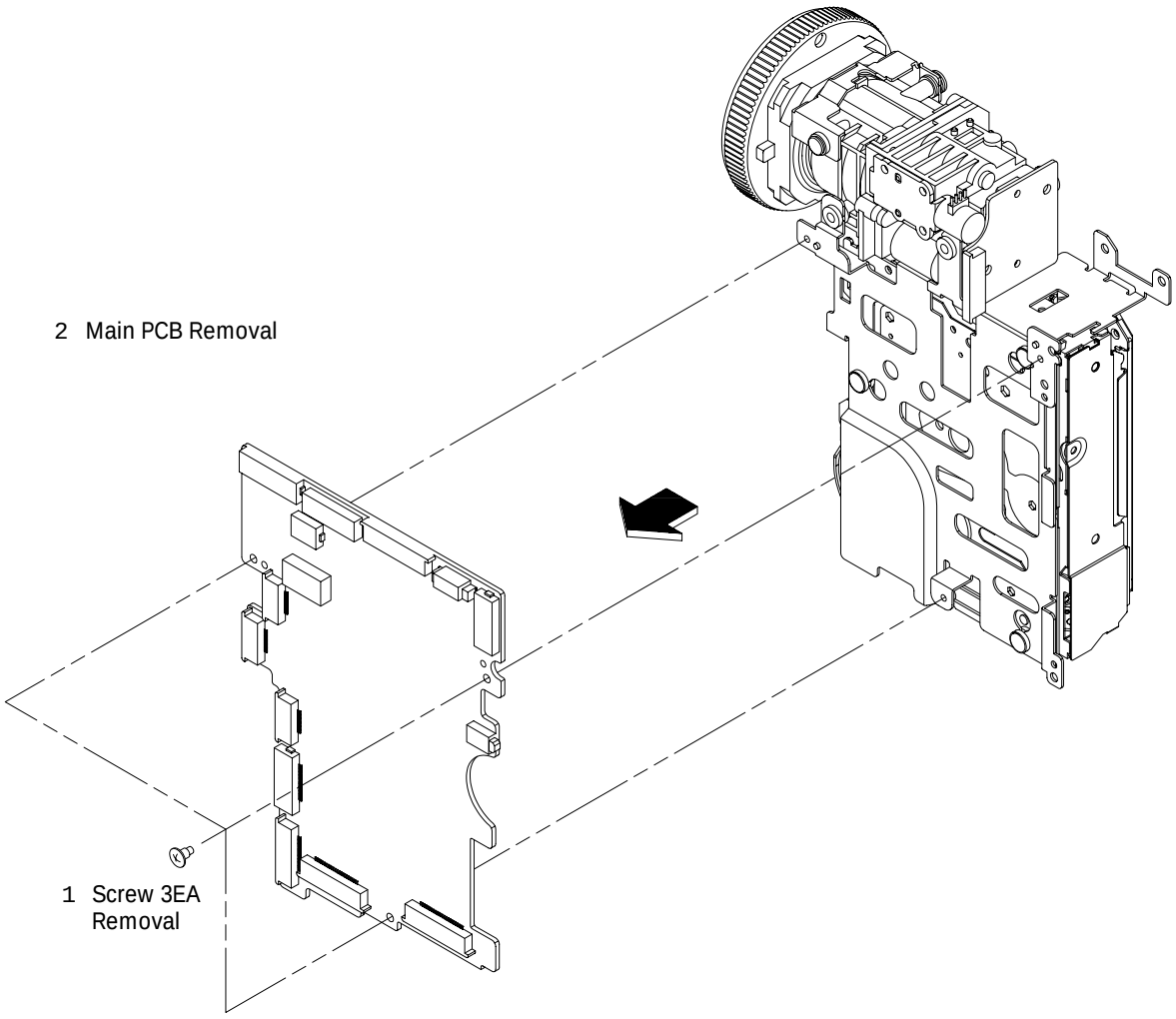


Fig. 3-8 Ass'y Main PCB Removal

4. Alignment and Adjustment

4-1. VCR Adjustment

4-1-1. VCR Adjustment Preparation

1. How to get into the VCR adjust mode.

STEP 1

1. Connect the power source.
2. Set the mode switch of the video camera to "VCR" position.
3. Push the “TAPE EJECT” switch so that Door Housing is opened.

STEP 2

1. Press and hold the "F.ADV" button on the remote control and "DISPLAY" button on the video camera at the same time for more than 5 seconds.
2. When monitor OSD appears as shown below, VCR adjustment mode has been activated successfully.
3. When changing the adjustment item, please press the “PHOTO / Self Timer” button on the Remote controller.
4. You can press “T / W” button on the remote controller to change adjustment value.
5. After setting adjustment value, please press “START / STOP” button on the remote controller to confirm DATA.

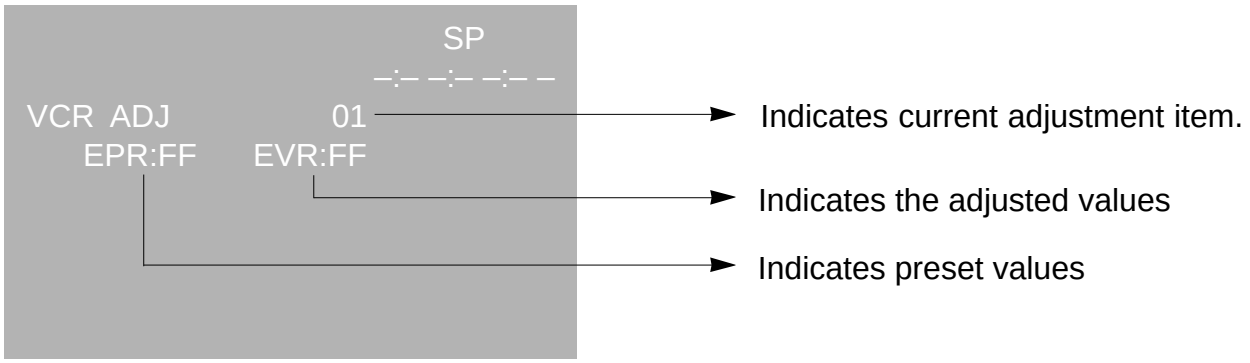


Fig.1. RIGHT CASE

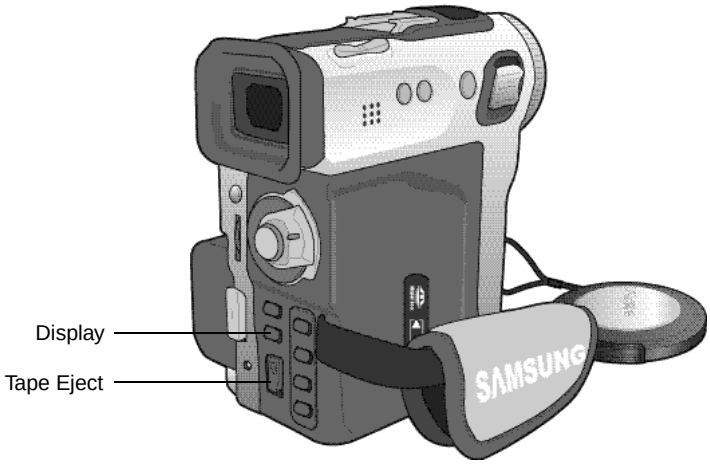
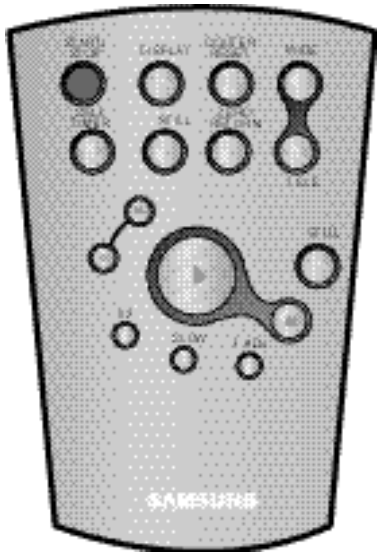


Fig.2. REMOCON KEY



STEP 3 . If you want to finish the adjustment mode, you have to do Power Reset.
The Power Reset means that you pull out the power source and pull in it again.

4-1-2. VCR Adjustment

1. VCR Adjustment Items

<table>
<tr><th>NO</th><th>NAME</th><th>Value</th><th>Description</th></tr>
<tr><td>01</td><td>SWP POSITION 1</td><td>Adjustment</td><td>HEAD SW 1</td></tr>
<tr><td>02</td><td>SWP POSITION 2</td><td>Adjustment</td><td>HEAD SW 2</td></tr>
<tr><td>03</td><td>EQC ch0</td><td>88</td><td>CH1 EQ Initial Value (FIX)</td></tr>
<tr><td>04</td><td>EQC ch1</td><td>88</td><td>CH2 EQ Initial Value (FIX)</td></tr>
<tr><td>05</td><td>GDH ch0</td><td>80</td><td>CH1 “Group Delay High” Initial Value (FIX)</td></tr>
<tr><td>06</td><td>GDH ch1</td><td>80</td><td>CH2 “Group Delay High” Initial Value (FIX)</td></tr>
<tr><td>07</td><td>GDL ch0</td><td>88</td><td>CH1 “Group Delay Low” Initial Value (FIX)</td></tr>
<tr><td>08</td><td>GDL ch1</td><td>88</td><td>CH2 “Group Delay Low” Initial Value (FIX)</td></tr>
<tr><td>09</td><td>AF-REC OFFSET</td><td>00</td><td>AFTER REC OFFSET (FIX)</td></tr>
<tr><td>0A</td><td>REC CURRENT</td><td>90</td><td>REC CURRENT (FIX)</td></tr>
<tr><td>0B</td><td>REC CURRENT MP</td><td>90</td><td>REC CURRENT MP (FIX)</td></tr>
<tr><td>0C</td><td>Y LEVEL</td><td>78</td><td>LUMI LEVEL (FIX)</td></tr>
<tr><td>0D</td><td>C LEVEL</td><td>C0</td><td>COLOR LEVEL(FIX)</td></tr>
<tr><td>0E</td><td>AGC-MARK</td><td>00</td><td>FIX</td></tr>
<tr><td>0F</td><td>ACC-MARK</td><td>00</td><td>FIX</td></tr>
<tr><td>10</td><td>S-AGC-MARK-OFFSET</td><td>00</td><td>FIX</td></tr>
<tr><td>11</td><td>S-ACC-MARK-OFFSET</td><td>00</td><td>FIX</td></tr>
<tr><td>12</td><td>LCD COLOR OFFSET</td><td>05</td><td>FIX</td></tr>
<tr><td>13</td><td rowspan="5">DIF INITIAL</td><td>FF</td><td>FIX</td></tr>
<tr><td>14</td><td>FF</td><td>FIX</td></tr>
<tr><td>15</td><td>FF</td><td>FIX</td></tr>
<tr><td>16</td><td>FF</td><td>FIX</td></tr>
<tr><td>17</td><td>FF</td><td>FIX</td></tr>
<tr><td>19</td><td>MODEL DATA</td><td>–</td><td>MODELINITIAL Value
<table>
<tr><th>MODEL</th><th>Adj. Value</th></tr>
<tr><td>SCD180</td><td>E8</td></tr>
<tr><td>VP-D190MSi</td><td>E9</td></tr>
<tr><td>VP-D190MS</td><td>81</td></tr>
</table></td></tr>
<tr><td>1A</td><td>DEW</td><td>45</td><td>FIX</td></tr>
<tr><td>1B</td><td>D.ZOOM</td><td>–</td><td>D.ZOOM
<table>
<tr><th>MODEL</th><th>Adj. Value</th></tr>
<tr><td>All model</td><td>43</td></tr>
</table></td></tr>
<tr><td>40</td><td>HEAD SW ADJUST</td><td>–</td><td>HEAD SW Adjustment</td></tr>
<tr><td>1F</td><td>COPY PROTECT</td><td>–</td><td>NTSC: 20 PAL: 12</td></tr>
</table>

2. How to adjust Head Switching Position.

1) Get into VCR ADJUST mode.

2) Move to the VCR ADJUST address “40”.

3) Play standard tape, and “Head Switching Position” will be adjusted automatically.

4-2 Camera Adjustment

Note: How to adjust the camera system.

1) EEPROM stores confirmed adjustment value of each adjustment step.
2) DSP (Digital Signal Process : ICP06-MAIN BOARD) digitalizes the camera signal.
3) When changing ICP08-MAIN BOARD of EEPROM, readjust main board. While changing LCD board- and EVF board- always readjust each part.
   Since EEPROM stores confirmed adjustment value of each adjustment step, readjusting must be performed in order to store the changed data.
4) Adjust the following items after changing LENS ASSY.
   a. LENS ZOOM TRACK
   b. AUTO HALL
   c. AUTO IRIS
5) Adjust the following items after changing EEPROM and MAIN BOARD.
   a. LENS ZOOM TRACK
   b. ZOOM VR CENTER
   c. AUTO HALL
   d. AUTO IRIS
   e. AUTO WHITE BALANCE (indoor)
   f. AUTO WHITE BALANCE (outdoor)

4-2-1 Adjustment Preparation

1. Measuring Instrument

1) DC power supply
2) Oscilloscope
3) PAL vectorscope, NTSC Vectorscope
4) PAL wave form monitor, NTSC wave monitor
5) PAL TV or monitor, NTSC TV or monitor
6) Color bar chart
   Gray scale chart

2) Camera Pcb configuration

1) Main PCB
2) CCD PCB
3) EIS PCB
4) EVF PCB
5) LCD PCB

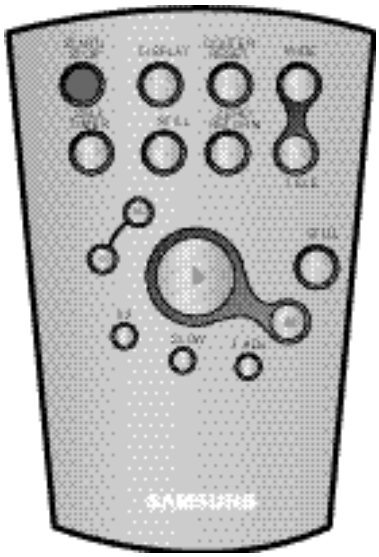
3. Before you start

1) Use the buttons on the remote control when adjusting camera.
2) Press the "START/STOP" button when storing confirmed adjustment value of each adjustment step in EEPROM.
3) The OSD shows “OK” after finishing each adjustment step.
4) To clear the adjustment mode, pull out the power source.

4. Functions of each button on the Remote Control

Button	Description
START / STOP (Confirm)	Stores changed value in the adjustment and auto adjustment mode.
STOP (Data Down)	Changes data in the adjustment state.
PLAY (Data Up)	
FF (Mode Up)	Changes mode.
REW (Mode Down)	

In adjustment mode, the buttons of the remote control is as the followings.



Note: In service adjustment mode, button names are different from those in customer function control mode.
e.g.) "START/STOP" is the same as "Confirm".

5. How to set up the camera adjustment mode

STEP 1

1) Connect the power source (battery/DC cable).
2) Open Housing from video camera.
3) Set the "POWER(CAMERA/PLAY-ER)" switch to "CAMERA" position.
4) The OSD appears.

STEP 2

Press and hold the "DISPLAY" button on the remote control and "EDIT(+)" button on the video camera at the same time for more than 5 seconds.

STEP 3

Monitor OSD shows " CAMERA ADJ OCD EPR : FF EVR : FF ". Then camera adjustment mode has been activated successfully.

Note : "XX" indicates variable values.

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
ODF	FF	FF	CAMERA TABLE INITIAL('AA'+CONFIRM)							
0CD	FF	FF	AUTO HALL ADJUST							
0CE	FF	FF	AUTO IRIS ADJUST							
0CF	FF	FF	AUTO WB ADJUST (0D4:INDDOR, 0D5:OUTDOOR)							
0D0	FF	FF	AUTO LENS ADJUST(WARNING! DON'T USE WITHOUT AN INFINITE COLLIMATOR)							
0D6	FF	FF	ZOOM LEVER CENTER POSITION SETTING							
0DB	FF	FF	NO USED							
0DE	FF	FF	3MM LENS AUTO ADJUST AT SERVICE FIELD(DISTANCE 3M+/-1Cm)							
000	00	01	model set(ntsc=00, pal =01)							
001	00	00	color-bar lcd-jig							
002	80	80	Iris Control Low(7-0Bit)							
003	01	01	CDS_WEIGHT CDS_CONTROL2L VALUE AT AGC VALUE CHANGE							
004	00	00	CDS_CONTROL1H							
005	00	00	CDS_CONTROL1L							
006	00	00	CDS_AGCH							
007	A0	A0	CDS_AGCL							
008	00	00	CDS_NC1							
009	18	18	CDS_IRISPWM_H							
00A	00	00	CDS_NC2							
00B	00	00	CDS_IRISPWM_L							
00C	00	00	CDS_COARSE_OFFSETH							
00D	00	00	CDS_COARSE_OFFSETL							
00E	00	00	CDS_FINE_OFFSETH							
00F	00	00	CDS_FINE_OFFSETL							
010	00	00	CDS_VBH							
011	00	00	CDS_VBL							
012	00	00	CDS_OPTBLACKH							
013	04	04	CDS_OPTBLACKL							
014	00	00	CDS_HOT_PIXELH							
015	01	01	CDS_HOT_PIXELL							
016	00	00	CDS_COLD_PIXELH							
017	00	00	CDS_COLD_PIXELL							
018	00	00	CDS_CONTROL2H							
019	04	04	CDS_CONTROL2L							
01A	00	00	CDS_BLANKH							
01B	00	00	CDS_BLANKL							
01C	00	00	CDS_DLY1_ADCLKH							
01D	08	09	CDS_DLY1_ADCLKL [D3~D0]							
01E	00	00	CDS_DLY2_SV_SRH							
01F	20	03	CDS_DLY2_SV_SRL; SHD ADJ[D7~D4] , SHP ADJ[D3~D0]							
020	01	01	CDS_TESTH							
021	80	80	CDS_TESTL							
022	18	18	MOTOR_STARTTIME							
023	01	01	MOTOR_DRIVETIME							
024	08	08	MOTOR_CHOPPING							
025	40	40	MOTOR_EXTPIN							
026	22	22	MOTOR_EVRA/_FOCUS MOTOR CURRENT							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
027	22	22	MOTOR_EVRB_ZOOM MOTOR CURRENT							
028	FF	FF	NO_USED							
029	FF	FF	NO_USED							
02A	FF	FF	NO_USED							
02B	FF	FF	NO_USED							
02C	FF	FF	NO_USED							
02D	FF	FF	NO_USED							
02E	FF	FF	NO_USED							
02F	FF	FF	NO_USED							
030	45	4C	AE TARGET							
031	38	38	Ep0_Hiluxper; IRIS DIFFRACTION POINT							
032	78	80	BLC_Ae_Target							
033	20	20	SPOTLIGHT_Ae_Target							
034	78	80	SANDSNOW_Ae_Target							
035	80	80	INITIAL IRIS							
036	90	90	Iris_UpGainPercent							
037	30	30	AutoAgcOn_Target							
038	CF	CF	SHUTTER _UP_DOWN_SPEED							
039	18	18	AE-center-percent							
03A	80	80	Ep0_Iris_DownSpeed							
03B	80	80	Ep0_AgcUpDown_Speed							
03C	80	80	agc min_max%eis_shut							
03D	90	90	Iris_DownGainPercent							
03E	80	80	Iris_Current_Hall_Re							
03F	03	03	Iris_Current_Option							
040	60	60	NO_USED							
041	FF	FF	NO_USED							
042	FF	FF	NO_USED							
043	FF	FF	NO_USED							
044	FF	FF	NO_USED							
045	FF	FF	NO_USED							
046	FF	FF	NO_USED							
047	FF	FF	NO_USED							
048	FF	FF	NO_USED							
049	FF	FF	NO_USED							
04A	FF	FF	NO_USED							
04B	FF	FF	NO_USED							
04C	FF	FF	NO_USED							
04D	FF	FF	NO_USED							
04E	FF	FF	NO_USED							
04F	FF	FF	NO_USED							
050	FF	FF	AF OPTION 1							
051	FF	FF	SPOT OPTION1							
052	FF	FF	AF_OPTION2							
053	FF	FF	AF_OPTION3							
054	02	02	Dual zoom speed[00,01,02,03=MAX]							
055	FF	FF	AF_OPTION4							
056	FF	FF	AF_OPTION5							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
057	FF	FF	AF_OPTION6							
058	01	01	WB_PGM_OPTION ,WHEN IN_DATA > 3100_B							
059	10	10	DETECTION MARGEIN OF YELLOW							
05A	30	04	WB_REMAPPING_B , WHEN IN_DATA >3100_B & NOT WHITE_DETECTED VALUE							
05B	2C	38	WB_REMAPPING_R , WHEN IN_DATA >3100_R & NOT WHITE_DETECTED VALUE							
05C	20	20	WB_REMAPPING_B , WHEN IN_DATA >3100_B & WHITE_DETECTED VALUE							
05D	20	25	WB_REMAPPING_R , WHEN IN_DATA >3100_R & WHITE_DETECTED VALUE							
05E	20	20	WB_REMAPPING_B , WHEN IN_DATA >3100_B & LOCATED OF LEFT SIDE							
05F	20	20	WB_REMAPPING_B , WHEN IN_DATA >3100_B & LOCATED OF RIGHT SIDE							
060	A5	A1	[CHANGED BY WB_ADJ#0CF OR #0D4] 3100_B							
061	30	2F	[CHANGED BY WB_ADJ#0CF OR #0D4] 3100_R							
062	52	52	[CHANGED BY WB_ADJ#0CF OR #0D5] 5100_B							
063	5E	53	[CHANGED BY WB_ADJ#0CF OR #0D5] 5100_R							
064	80	80	OUTDOOR DECISION HALL PERCENT VALUE							
065	A0	A0	WB_IN_B_DATA > 3100_B (CONSIDERED INDOOR)							
066	81	81	WB_IN_R_DATA > 5100_R (CONSIDERED OUTDOOR)							
067	C8	C8	Ep0_awb_tracking							
068	EC	EE	WHITE_DETECTION_MARGEIN AT OUTDOOR							
069	21	21	WB_SLOPE OF 3100-5100							
06A	84	84	OUTDOOR_B_CONTROL OF POWER ON							
06B	84	84	OUTDOOR_R_CONTROL OF POWER ON							
06C	10	20	Y-LEVEL DOWN VALUE AT AGC MAX POINT							
06D	01	01	WB_OPTION_DEVIDE LEFT TO RIGHT ,WHEN IN_B_DATA > 3100_B							
06E	10	12	@ R_HUE_NEGA_5100							
06F	10	10	@ R_HUE_POSI_5100							
070	09	10	@ NB_HUE_NEGA_5100							
071	20	20	@ B_HUE_POSI_5100							
072	0E	0E	WB_LEFT_MARGEIN(LENGTH) OF WHITE DETECTION							
073	08	08	WB_RIGHT_MARGEIN(LENGTH) OF WHITE DETECTION							
074	03	03	display option -awb							
075	20	20	AWB_TRACKING_SPEED							
076	00	00	[D70]R MAPPING ,WHEN WB_IN_R_DATA > 3100_R							
077	00	00	WB_INCREASE_LENGTH AT LOW LIGHT CONDITION							
078	00	00	B MAPPING ,WHEN 3100_B < WB_IN_B_DATA < 2600_B							
079	50	50	WB_WHITE_DETECTION ROUTINE SELECT OPTION							
07A	0A	0A	AAWB_Y-LEVEL_DEVIDE SCALE							
07B	08	08	AWB_B_3100_MOVE TO CENTER							
07C	00	00	AWB_R_3100_MOVE TO CENTER							
07D	00	00	AWB_B_5100_MOVE TO CENTER							
07E	05	00	AWB_R_5100_MOVE TO CENTER							
07F	00	00	R MAPPING ,WHEN 3100_R < WB_IN_R_DATA < 2600_R							
080	16	28	R_3100_OVER WHEN IN_DATA > 3100_B							
081	24	20	B_3100_OVER WHEN IN_DATA > 3100_B							
082	00	00	AWB_OPTION[D70-D5]							
083	06	06	WB_RIGHT AREA _DIVIDE SCALE							
084	04	04	WB_LEFT AREA _DIVIDE SCALE							
085	02	02	WB-WHITE_DETECTION_ROUTINE SELECT OPTION							
086	60	90	@ R_GAIN_POSI_5100							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
087	60	88	@ R_GAIN_NEGA_5100							
088	4E	60	@ B_GAIN_POSI_5100							
089	48	55	@ NB_GAIN_NEGA_5100							
08A	00	00	WB_INDOOR_CLIP_CONTORL OPTION							
08B	02	02	YELLOW TRACKING CONDITION SELECT AT NORMAL							
08C	01	01	AWB_DIVIDED MIDIUME Y_LEVEL WEIGHT							
08D	00	00	WB_LOW_LIGHT_LENGTH_OPTION							
08E	02	02	WB_R_CONTOL_SHIFT AT EIS ON							
08F	02	02	WB_B_CONTOL_SHIFT AT EIS ON							
090	15	17	EIS_VERTICAL_AD_GAIN							
091	2D	29	EIS_HORIZENTAL_AD_GAIN							
092	10	10	EIS_NOISE_THRESHOLD							
093	F0	F0	EIS_VERTICAL_CENTERRING_GAIN							
094	F0	F0	EIS_HORIZENTAL_CENTERRING_GAIN							
095	08	08	EIS_VERTICAL_DEFAULT							
096	10	10	EIS_HORIZENTALL_DEFAULT							
097	FF	FF	EIS_WIDE_PERCENT							
098	FF	FF	EIS_TEST_OPTION							
099	28	28	EIS_DEMO_SPEED							
09A	04	04	EIS_PANNING_THRESHOLD							
09B	0F	0F	EIS_REF_MAX_OPTION							
09C	F4	F4	FREPENCY_REF APNNING ON TIME							
09D	04	04	GYRO_REF DEC. MAX							
09E	18	18	FREQUENCY_SUM THRESHOLD FOR GYRO_REF_RESET							
09F	40	40	EIS_HSUVDIV							
0A0	50	50	NO_USED							
0A1	00	00	NO_USED							
0A2	55	55	NO_USED							
0A3	00	00	NO_USED							
0A4	33	33	NO_USED							
0A5	00	00	NO_USED							
0A6	A0	A0	NO_USED							
0A7	00	00	NO_USED							
0A8	40	40	Hall Close Target							
0A9	89	89	Hall Open Value - Close Value							
0AA	60	60	Hall Ref Start At Hall Adjust							
0AB	4C	4C	Hallgain Start At Hall Adjust							
0AC	43	42	[CHANGED BY HALL-ADJ#0CD]Hall Min Value(Iris Close)							
0AD	DD	DD	[CHANGED BY HALL-ADJ#0CD]Hall Max Value(Iris Open)							
0AE	07	07	LENS_CHECK_LIMIT_0							
0AF	0C	0C	LENS_CHECK_LIMIT_1							
0B0	0C	0C	LENS_CHECK_LIMIT_2							
0B1	10	10	LENS_CHECK_LIMIT_3							
0B2	15	15	LENS_CHECK_LIMIT_4							
0B3	00	00	NO_USED							
0B4	58	58	Ae Control Value At Adjt							
0B5	20	20	Agc Min Limit Value							
0B6	75	75	Agc Max Limit Value							

model ADDR	NTSC data	PAL data	CONTENT d7 d6 d5 d4 d3 d2 d1 d0
0B7	80	80	[CHANGED BY Z.VR_CHKJ#0D6]ZOOM VR LEVER CENTER VALUE
0B8	20	20	Zoom Vr Margin
0B9	15	19	ZOOM MAX SPEED
0BA	87	87	[CHANGED BY IRIS-ADJ#0CE]IRIS_CONTROL_MIN_LOW
0BB	DC	DA	[CHANGED BY IRIS-ADJ#0CE]IRIS_CONTROL_MIN_HIGH
0BC	00	00	[CHANGED BY IRIS-ADJ#0CE]IRIS_CONTROL_MAX_LOW
0BD	5C	5B	[CHANGED BY IRIS-ADJ#0CE]IRIS_CONTROL_MAX_HIGH
0BE	0B	0B	[CHANGED BY LENS_ADJ#0DE]TELE ENG LIMIT
0BF	BA	A0	[CHANGED BY LENS_ADJ#0DE]Focus Photo Sensor Position-L
0C0	81	81	[CHANGED BY LENS_ADJ#0DE]Focus Photo Sensor Position-H
0C1	07	1A	[CHANGED BY LENS_ADJ#0DE]Zoom Photo Sensor Position-L
0C2	89	89	[CHANGED BY LENS_ADJ#0DE]Zoom Photo Sensor Position-H
0C3	C0	C0	[CHANGED BY LENS_ADJ#0DE]Focus Moving Data At Adjt-L[with #0D7='1']
0C4	82	82	[CHANGED BY LENS_ADJ#0DE]Focus Moving Data At Adjt-H
0C5	30	30	[CHANGED BY LENS_ADJ#0DE]Zoom Moving Data At Adjt-L
0C6	85	85	[CHANGED BY LENS_ADJ#0DE]Zoom Moving Data At Adjt-H
0C7	11	11	[CHANGED BY LENS_ADJ#0DE]Focus MID Margin-L
0C8	00	00	[CHANGED BY LENS_ADJ#0DE]Focus MID Margin-H
0C9	FF	FB	[CHANGED BY LENS_ADJ#0DE]Focus Tele Margin-L
0CA	FF	FF	[CHANGED BY LENS_ADJ#0DE]Focus Tele Margin-H
0CB	1A	19	[CHANGED BY LENS_ADJ#0DE]Focus Wide Margin-L
0CC	00	00	[CHANGED BY LENS_ADJ#0DE]Focus Wide Margin-H
0CD	FF	FF	HALL_AUTO_ADJUST
0CE	FF	FF	IRIS_AUTO_ADJUST
0CF	FF	FF	WB_AUTO_ADJUST(LINE):indoor-outdoor
0D0	FF	FF	LENS_AUTO_ADJUST(WITH INFINITE COLLIMITOR CONDITION)
0D1	FF	FF	NO_USED
0D2	FF	FF	NO_USED
0D3	FF	FF	LENS_CHECK
0D4	FF	FF	WB_3100K_AUTO_ADJUST
0D5	FF	FF	WB_5100K_AUTO_ADJUST[5100=3100+C18 Fliter]
0D6	FF	FF	ZOOM _VR_LEVER_AUTO_CENTER_ADJUST
0D7	00	00	ZOOM/FOCUS MOTOR MOVING (#0C3~#0C6) '1'=one AF
0D8	FF	FF	NO_USED
0D9	FF	FF	GYRO_HORIZENTAL_AUTO_CHECK
0DA	FF	FF	GYRO_VERTIACL_AUTO_CHECK
0DB	FF	FF	AGC_ADJ(NO_USED)
0DC	FF	FF	NO_USED
0DD	FF	FF	NO_USED
0DE	FF	FF	LENS_AUTO_ADJUST_3M FOR SERVICE FIELD
0DF	FF	FF	CAMERA INITIAL 'AA'+CONFIRM
0E0	0A	0A	GYRO_CHECK_CENTER_VALUE
0E1	40	40	GYRO_CHECK_THRESHOLD_VALUE
0E2	00	01	camera model code(line-initial)
0E3	58	58	agc middle point set (#0B5~ #1DA ~#0E3)
0E4	E0	E0	agc middle chroma suppress. Percent of #142
0E5	08	09	agc middle noise slice (#133)
0E6	0A	0A	agc middle YH-APT-GAIN+ (max:1F)(#131)

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
0E7	0A	0A	agc middle YV-APT-GAIN+ (max:1F)(#132)							
0E8	0F	0F	agc middle YV-APT-GAIN- (max:1F)(#13B)							
0E9	06	05	agc middle YH-APT-GAIN- (max:1F)(#13C)							
0EA	F8	F3	agc middle digital clamp middle value(#121)							
0EB	F0	E8	agc max digital clamp value(#121)							
0EC	0E	0E	color-key-green #17A (#16E,#16F,#0EC)							
0ED	09	09	color-key-blue #17A (#17C,#17D,#0ED)							
0EE	0C	0C	color-key-yellow #17A (#17E,#17F,#0EE)							
0EF	FF	FF	NO_USED							
0F0	FF	FF	NO_USED							
0F1	FF	FF	NO_USED							
0F2	FF	FF	NO_USED							
0F3	FF	FF	NO_USED							
0F4	FF	FF	NO_USED							
0F5	FF	FF	NO_USED							
0F6	FF	FF	NO_USED							
0F7	FF	FF	NO_USED							
0F8	FF	FF	NO_USED							
0F9	FF	FF	NO_USED							
0FA	FF	FF	NO_USED							
0FB	FF	FF	NO_USED							
0FC	FF	FF	NO_USED							
0FD	FF	FF	NO_USED							
0FE	FF	FF	NO_USED							
0FF	FF	FF	NO_USED							
100	00	00					X27_INV	H1_INV	ADCLK_SEL	HSP_SEL
101	00	00	HCNT_SET[7:0]							
102	9E	AD	H1_DLY[3:0]				H2_DLY[3:0]			
103	13	04	SHP_DLY[3:0]				SHD_DLY[3:0]			
104	7A	0A	ADCLK_DLY[3:0]				RG_DLY[3:0]			
105	33	33	-	SHP_WITH[2:0]			-	SHD_WITH[2:0]		
106	A7	A6	VPUL_INV	V_SKIP	SHUT_MODE[1:0]		PBLK_CDS	PBLK_INV	CLP_INV	ALLSCKINV
107	00	00	-	FLD_INV	V_CLP	Hi_SHUT[8]	CINEMA	CLP1_ADJ[2:0]		
108	00	00	Hi_SHUT_VAL[7:0]							
109	00	00	Lo_SHUT_VAL[7:0]							
10A	80	80	FCM_Addr[7:0]							
10B	00	00	-	-	-	-	-	-	FCM_Addr[9:8]	
10C	01	00	-	-	-	ITU601	AF_ZONE	CCD_DIRCT	1CLK_SYNC	CRCB_SEL
10D	10	10	-	-	RG_SEL		SHP_SEL		SHD_SEL	
10E	40	3C	DAC0_PWM_OUTPUT[7:0]							
10F	6E	81	DAC1_PWM_OUTPUT[7:0]							
110	FF	FF	H_ZM_RATIO[7:0]							
111	04	02	H_ZM_START[7:0]							
112	00	00	H_ZM_START[7:0]							
113	00	00	V_ZM_RATIO[7:0]							
114	01	01	V_ZM_SUB_Odd[7:0]							
115	30	37	V_ZM_SKIP[7:0]							
116	00	00	YC_DLY[7:0]							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
117	C0	C0	LIN_H	LIN_V	V_DLY_ADJ[1:0]		H_DLY_ADJ[1:0]		H_ZM_START[9:8]	
118	01	01	-	-	UVCLK_INV	DZSCK_INV	HAIF_MIR	FULL_MIR	HMIR_AR[8]	FMIR_AR[8]
119	B5	B5	H_Mirr_Addr[7:0]							
11A	68	68	F_Mirr_Addr[7:0]							
11B	C0	00	HMOSAIC_ADJ[1:0]		H_MOSAIC[5:0]					
11C	C0	C0	VMOSAIC_ADJ[1:0]		V_MOSAIC[5:0]					
11D	38	38	HSIZE_AUTO_ZM[7:0]							
11E	38	38	VSIZE_AUTO_ZM[7:0]							
11F	00	00	NO_USED							
120	10	10	-	-	AD_DLY[1:0]/SYS_DLY		CLP_EN	Defect_mode_S2_S1_S0		
121	FB	FD	P_OFFSET[7:0]							
122	1D	1D	P_THR[7:0]							
123	00	00	-	-	-	-	P_RAM_Hi[19:16]			
124	00	00	P_RAM_Mdl[7:0]							
125	00	00	P_RAM_Lo[7:0]							
126	20	20	-	P_FIND_CNT[6:0]						
127	25	26	P_WH_START[7:0]							
128	DC	DD	P_WH_END[7:0]							
129	01	02	P_WV_START[7:0]							
12A	7A	92	P_WV_END[7:0]							
12B	00	00	-	-	-	-	PTEST	DET_DISP	CRCT_DISP	THR_DISP
12C	00	00	-	-	-	-	-	-	-	PATTN_GEN
12D	00	00	NO_USED							
12E	00	00	NO_USED							
12F	00	00	NO_USED							
130	A8	A8	YVAPT_BKTH[1:0]		YVAPT_BKG[1:0]		YHAPT_BKTH[1:0]		YHAPT_BKG[1:0]	
131	0C	0C	YAPT_FCOEF_Hi[1:0]		GAMA_LIN	YH_APT_GAIN_POSI[4:0]				
132	CC	CC	YAPT_FCOEF_Lo[1:0]		YGAMA_OLD	YV_APT_GAIN_POSI[4:0]				
133	04	04	-	-	YAPT_NOISE_SLICE[5:0]					
134	D8	D8	Y_Hi_REF[7:0]							
135	78	78	EDGE_REF[7:0]							
136	E0	E0	YVLPF_SEL	EG_SEL	Hi_SEL	YLPF_SEL[1:0]		YCS_DLY[2:0]		
137	06	06	-	YAPT_NSLICE_AFTER_GAMA[6:0]						
138	F8	F8	YWC[7:0]							
139	7C	7C	YAPT_CLIP[7:0]							
13A	62	62	-	Y_DETAIL_ENH_THR[2:0]			-	-	YD_ENH_GAIN[1:0]	
13B	B1	B1	YV_APT_GAIN_NEGA[4:0]					YAPTHi_CLP[1:0]		EGFALL[4]
13C	59	41	YH_APT_GAIN_NEGA[4:0]					YAPTHi_CLP[3:2]		HiFALL[4]
13D	8F	8F	HiFALL[3:0]				EGFALL[3:0]			
13E	00	00	NO_USED							
13F	00	00	NO_USED							
140	90	98	Y_GAIN[7:0]							
141	90	90	DSE_Y_GAIN[7:0]							
142	90	88	C_GAIN[7:0]							
143	00	00	YART[2:0]			YAPT_Hi_GAIN[4:0]				
144	C0	C0	YH_PST_GN[1:0]		YV_PST_GN[1:0]		YH_EMBO_SEL[1:0]		YV_EMBO_SEL[1:0]	
145	52	52	PASTEL_OFFSET[7:0]							
146	35	35	EMBOSSING_OFFSET[7:0]							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
147	00	00	GROUP_DLY[2:0]			Y_NEGA	Y_EMBOSS	Y_PASTEL	YIN/OUT_WIND	
148	00	00	NO_USED							
149	00	00	NO_USED							
14A	00	00	NO_USED							
14B	00	00	NO_USED							
14C	00	00	NO_USED							
14D	00	00	NO_USED							
14E	00	00	NO_USED							
14F	00	00	NO_USED							
150	A8	A8	DYVAPT_BKTH[1:0]		DYVAPT_BKG[1:0]		DYHAPT_BKTH[1:0]		DYHAPT_BKG[1:0]	
151	0C	0C	-	-	-	DYH_APT_GAIN_POSI[4:0]				
152	50	50	DYH_APT_GAIN_NEGA[4:0]						-	- -
153	0C	0C	-	-	-	DYV_APT_GAIN_POSI[4:0]				
154	B0	A0	DYV_APT_GAIN_NEGA[4:0]						-	- -
155	10	10	-	-	DDY_APT_NSlice[5:0]					
156	70	70	DYAPT_CLIP[7:0]							
157	00	00	-	-	-	DYAPT_Hi_GAIN[4:0]				
158	06	06	-	DYAPT_NSLICE_AFTER_GAMA[6:0]						
159	62	62	-	DY_DETAIL_ENH_THR[2:0]			-	-	DYD_ENH_GAIN[1:0]	
15A	10	10	-	-	-	DYVLPF_SEL	YAPTHi_CLP[3:0]			
15B	36	36	DWH_START[7:0]							
15C	A5	A5	DWH_END[7:0]							
15D	2D	2D	DWV_START[7:0]							
15E	7F	7F	DWV_END[7:0]							
15F	00	00	NO_USED							
160	06	06	-	CHCON	CVCON_O	CVCON_E	CTL_SEL	CRMS	CBMS	
161	46	46	CR_COEF[7:0]							
162	66	66	CB_COEF[7:0]							
163	0D	0C	CRDS[7:0]							
164	FC	FE	CBDS[7:0]							
165	00	00	CGDS[7:0]							
166	00	00	-	-	-	-	CRWB[9:8]		CBWB[9:8]	
167	39	32	CRWB[7:0]							
168	8A	9D	CBWB[7:0]							
169	24	24	CGWB[7:0]							
16A	59	59	CRRG[7:0]							
16B	D9	D9	CBRG[7:0]							
16C	F2	F2	CRBG[7:0]							
16D	72	72	CBBG[7:0]							
16E	B0	B0	color-key-green #178							
16F	00	00	color-key-green #179							
170	80	98	C_RY_GP[7:0]							
171	98	90	C_RY_GN[7:0]							
172	1B	12	C_RY_HP[7:0]							
173	22	12	C_RY_HN[7:0]							
174	4E	60	C_BY_GP[7:0]							
175	48	5D	C_BY_GN[7:0]							
176	18	17	C_BY_HP[7:0]							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
177	0D	0A	C_BY_HN[7:0]							
178	E8	E8	C_KEY_Slope1[7:0]			make-up red				
179	10	10	C_KEY_Slope2[7:0]			make-up-red				
17A	04	04	-	-	-	-	CSLOP1[9]	CSLOP1[8]	CSLOP2[9]	CSLOP2[8]
17B	00	00	-	-	CHUE_FIX	CBLUE	CNEGA	CMONO	CKEY	CKEY_NEGA
17C	07	07	color-key-blue #178							
17D	EB	EB	color-key-blue #179							
17E	E4	E4	color-key-yellow #178							
17F	00	00	color-key-yellow #179							
180	02	04	Y_GAMMA1[7:0]							
181	07	09	Y_GAMMA2[7:0]							
182	12	12	Y_GAMMA3[7:0]							
183	28	25	Y_GAMMA4[7:0]							
184	44	42	Y_GAMMA5[7:0]							
185	68	6A	Y_GAMMA6[7:0]							
186	96	96	Y_GAMMA7[7:0]							
187	EA	EA	Y_GAMMA8[7:0]							
188	02	02	C_GAMMA1[7:0]							
189	07	07	C_GAMMA2[7:0]							
18A	12	12	C_GAMMA3[7:0]							
18B	28	25	C_GAMMA4[7:0]							
18C	44	42	C_GAMMA5[7:0]							
18D	68	6A	C_GAMMA6[7:0]							
18E	96	96	C_GAMMA7[7:0]							
18F	EA	EA	C_GAMMA8[7:0]							
190	54	51	AF_W1H_STRT[7:0] //N14 //P13							
191	A8	A6	AF_W1H_END[7:0]							
192	26	2E	AF_W1V_STRT[7:0]							
193	5F	71	AF_W1V_END[7:0]							
194	15	13	AF_W2H_STRT[7:0]							
195	E4	E0	AF_W2H_END[7:0]							
196	0A	0B	AF_W2V_STRT[7:0]							
197	78	8E	AF_W2V_END[7:0]							
198	12	13	AE_W1H_STRT[7:0]							
199	E7	E3	AE_W1H_END[7:0]							
19A	1C	1C	AE_W1V_STRT[7:0]							
19B	78	8E	AE_W1V_END[7:0]							
19C	48	47	AE_W2H_STRT[7:0]							
19D	B0	AF	AE_W2H_END[7:0]							
19E	23	2A	AE_W2V_STRT[7:0]							
19F	5A	6C	AE_W2V_END[7:0]							
1A0	17	16	AWB_H_STRT[7:0]							
1A1	E7	E6	AWB_H_END[7:0]							
1A2	08	09	AWB_V_STRT[7:0]							
1A3	76	8E	AWB_V_END[7:0]							
1A4	FF	FF	AE_THR_HiGH[7:0]							
1A5	00	00	AE_THR_LOW[7:0]							
1A6	B0	B0	AWB_THR_HiGH[7:0]							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
1A7	40	40	AWB_THR_LOW[7:0]							
1A8	B0	B0	AF_Clip_THR[7:0]							
1A9	F0	F0	AE_Clip_THR[7:0]							
1AA	04	04	-	ODM_ZONE_DISP[2:0]			ODM_TEST	OLPF_SEL	FIL_PASS	
1AB	00	00	NO_USED							
1AC	00	00	NO_USED	agc-chroma-suppress-comment						
1AD	00	00	NO_USED	(if #0E4:e0-> (224/256)=0.875 ;80% gain of #142 value)						
1AE	00	00	NO_USED	(if #0E4:C0 (192/256)						
1AF	00	00	NO_USED	(total c_supp-> 0.875X((192/256)=0.656 ;65% gain of #142)						
1B0	01	01	CCD WHITE DEFECT COMPENSATION H-START(AEWIH)							
1B1	F6	F6	CCD WHITE DEFECT COMPENSATION H-END(AEWIH)							
1B2	02	02	CCD WHITE DEFECT COMPENSATION V-START(AEWIV)							
1B3	77	77	CCD WHITE DEFECT COMPENSATION V-END(AEWIV)							
1B4	10	10	CCD WHITE DEFECT COMPENSATION DIGITAL CLAMP LEVEL(#121)							
1B5	38	38	COLOR SUPPRESS START AGC							
1B6	E0	D0	COLOR SUPPRESS PERCENT OF MIDDLE_#0E4(00=no color,FF=no suppress)							
1B7	1A	1A	[ldz]D/Z_ON_step							
1B8	80	80	[ldz]D/Z_ON_TELE_L			D/ZOOM UP START POINT				
1B9	87	87	[ldz]D/Z_ON_TELE_H							
1BA	00	00	[ldz]D/Z_ON_WIDE_L			D/ZOOM UP END POINT				
1BB	85	85	[ldz]D/Z_ON_WIDE_H							
1BC	00	00	[ldz]D/Z_OFFS_WIDE_L			D/ZOOM DOWN START POINT				
1BD	83	83	[ldz]D/Z_OFFS_WIDE_H							
1BE	50	50	[ldz]D/Z_OFFE_WIDE_L			D/ZOOM DOWN END POINT				
1BF	7C	7C	[ldz]D/Z_OFFE_WIDE_H							
1C0	F9	F9	[d/z]D/Z00M MAX STEP							
1C1	38	38	[d/z]_HSIZE(#11D)							
1C2	38	38	[d/z]_VSIZE(#11E)							
1C3	04	04	NO_USED							
1C4	B0	B0	NEW IRIS CONTROL CENTER VALUE AT IRIS ADJT							
1C5	80	80	DSE_ART_#143							
1C6	30	2A	DSE_SEPIA_R_#163							
1C7	C0	B8	DSE_SEPIA_C_RY_HP_#172							
1C8	9E	AD	DSE_B/W_H1/H2_DLY_#102							
1C9	23	04	DSE_B/W_SHP/SHD_DLY_#103							
1CA	7A	0A	DSE_B/W_ADCLK/RG_DYL_#104							
1CB	00	00	DSP_YART_EMBO_#143							
1CC	5F	5F	DSP_YH_PST_EMBO_GAIN_EMBO_#144							
1CD	48	48	DSP_EMBO_OFFSET_EMBO_#146							
1CE	AA	AA	DSP_DSE_Y_V_APT_BKTH_EMBO_#150							
1CF	00	00	DSP_DSE_Y_H_APT_GAIN_POSI_EMBO_#151							
1D0	90	90	DSP_DSE_Y_H_APT_GAIN_NEGAI_EMBO_#152							
1D1	12	12	DSP_DSE_Y_V_APT_GAIN_POSI_EMBO_#153							
1D2	90	90	DSP_DSE_Y_V_APT_GAIN_NEGA_EMBO_#154							
1D3	0F	0F	DSP_DSE_Y_APT_NOISE_SLICE_EMBO_#155							
1D4	BF	BF	DSP_DSE_Y_APT_CLIP_EMBO_#156							
1D5	10	10	DSP_DSE_YHILIGHT_GAIN_EMBO_#157							
1D6	18	18	DSP_DSE_YAPT_NSLICEAFTE_GAM_EMBO_#158							

model ADDR	NTSC data	PAL data	CONTENT d7	d6	d5	d4	d3	d2	d1	d0
1D7	10	10	DSP_DSE_YDETAIL_EHAN_TH_EMBO_#159							
1D8	00	00	DSP_DSE_Y_V_APT_LPF_SEL_EMBO_#15A							
1D9	00	00	NO_USED							
1DA	38	38	AGC_NSL_START_AGC							
1DB	09	06	AGC_H_APT_G_PO_MIN_#131[4:0] MAX=IF							
1DC	05	05	AGC_V_APT_G_PO_MIN_#132[4:0] MAX=1F							
1DD	1A	20	AGC_NOISE_SL_MAX_#133[5:0] MAX=3F							
1DE	01	01	AGC_H_APT_G_NE_MIN_#13B[4:0] MAX=IF							
1DF	08	05	AGC_V_APT_G_NE_MIN_#13C[4:0] MAX=1F							
1E0	0C	0C	PHOTO-DSP#131-H.APER+							
1E1	04	04	PHOTO-DSP#134-NOISE/S							
1E2	59	41	PHOTO-DSP#13C-H.APER-							
1E3	00	00	NO_USED							
1E4	60	60	NO_USED							
1E5	00	00	NO_USED							
1E6	00	00	NO_USED							
1E7	00	00	NO_USED							
1E8	00	00	NO_USED							
1E9	00	00	NO_USED							
1EA	00	00	NO_USED							
1EB	00	00	NO_USED							
1EC	00	00	NO_USED							
1ED	00	00	NO_USED							
1EE	00	00	NO_USED							
1EF	00	00	NO_USED							
1F0	A7	A6	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#106							
1F1	01	01	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#12C							
1F2	80	88	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#142							
1F3	66	66	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#160							
1F4	40	40	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#170							
1F5	40	40	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#171							
1F6	F8	F8	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#172							
1F7	F8	F8	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#173							
1F8	40	40	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#174							
1F9	40	40	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#175							
1FA	F8	F8	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#176							
1FB	F8	F8	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#177							
1FC	3B	3B	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#167							
1FD	56	56	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#168							
1FE	24	24	COLOR_BAR_PATTERN_GEN FOR LCD(CVF)_ADJUST_#169							
1FF	19	19	REVISION_DATE							

4-2-2 Camera Adjustment

Note : "XX XX" indicate the previous preset value and adjusted value. Press the START / STOP (Confirm) button to store the adjusted value.

CAMERA ADJ EPR:XX (Stored value)	OCD EVR:XX (Adjusted value)

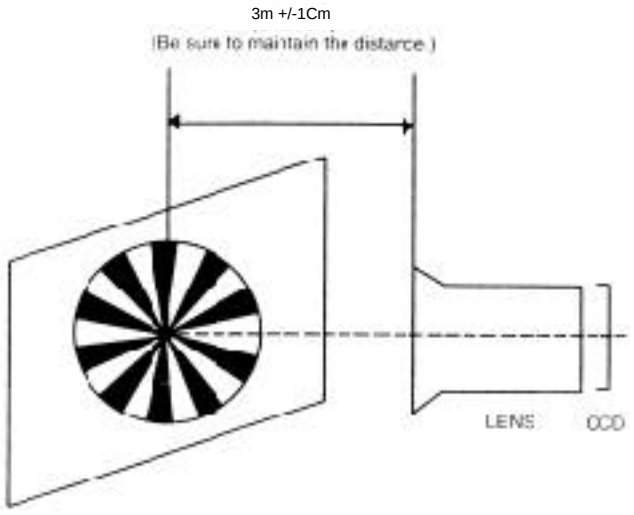
1. LENS ZOOM TRACK

Caution : For whole zoom range, it shall be in focus. The location of a focus lens is moving depending on the location of zoom lens. During adjusting, micom measures the focus location from a near distance to a long.

1) Camera is set to E-E mode.
2) Focus chart photo (the last page of manual)
3) Ensure that camera is left an about 3 m distance from a focus chart and the focus of lens is placed vertically. Attach a focus chart to white or gray wall of a flat surface.
4) Connect a video output terminal to a TV.
5) Press the FF(Mode Up) / REW(Mode Down) button so that OSD shows "ODE XX XX".
6) Press the START / STOP (Confirm) button. Never impact on the lens when adjusting zoom and focus lens. The OSD shows “OK” after finishing the adjustment.

2. Zoom VR center

1) Camera mode & 3100°K gray scale chart.
2) Connect a video output terminal to a TV.
3) Press the FF(Mode UP) / REW(mode Down) button so that OSD shows “OD6 XX XX”.
4) Press the START / STOP (Confirm) button.
5) Then Micom finds out Zoom VR center position.
   Store Zoom VR center value in OB7.

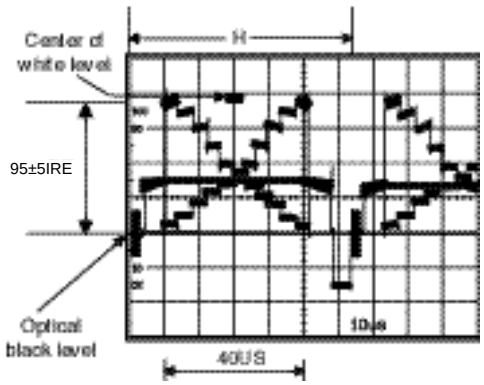


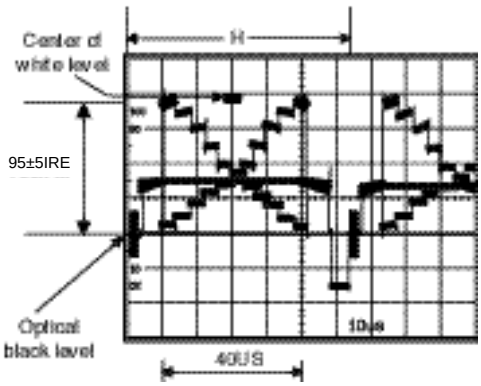
3. AUTO HALL

1) Camera mode & 3100˚ K gray scale chart
2) Connect a video output terminal to a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "OCD XX XX".
4) Press the START/STOP (Confirm) button.
5) Then micom finds out max. Hall value with an iris opened and min. Hall value with an iris closed. Store max. and min. value of Hall in OAD and OAC respectively.
6) The OSD shows “OK” after finishing the adjustment.

4. AUTO IRIS LEVEL

1) Camera mode & 3100˚ K gray scale chart
2) Connect a video output terminal to a wave form monitor and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "OCE XX XX".
4) Press the START/STOP (Confirm) button.
5) Then micom finds out max. Hall value with an iris opened and min. Hall value with an iris closed. Store max. and min. value of in OBC, OBD and OBA, OBB respectively.
6) The OSD shows “OK” after finishing the adjustment.





5. AUTO WHITE BALANCE (indoor)

1) Camera mode & 3100˚ K/5100˚ K gray scale chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "OD4 XX XX".
4) Ensure that camera picks up image 40μs on 3100˚K gray scale chart precisely and the illumination is 1500-2000 Lux.
5) Press the START/STOP (Confirm) button to ensure that white spot on a vectorscope is moving in the middle of screen.
6) The OSD shows “OK” after finishing the adjustment.

6. AUTO WHITE BALANCE (outdoor)

1) Camera mode & 3100˚ K/5100˚ K gray scale chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "OD5 XX XX".
4) Ensure that camera picks up image 40 on 5100 gray scale chart (3100 gray scale chart + C16 filter) precisely and the illumination is 1500-2000 Lux.
5) Press the START/STOP (Confirm) button to ensure that white spot on a vectorscope is moving in the middle of screen.
6) The OSD shows “OK” after finishing the adjustment.

7. R-Y POSITIVE GAIN (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "170 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the red level is 70IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

7-b. R-Y POSITIVE GAIN (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100˚ K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O86 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the red level is 55IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

8. R-Y NEGATIVE GAIN (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "171 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the cyan level is 60IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

8-b. R-Y NEGATIVE GAIN (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O87 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the cyan level is 40IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

9. B-Y POSITIVE GAIN (indoor)

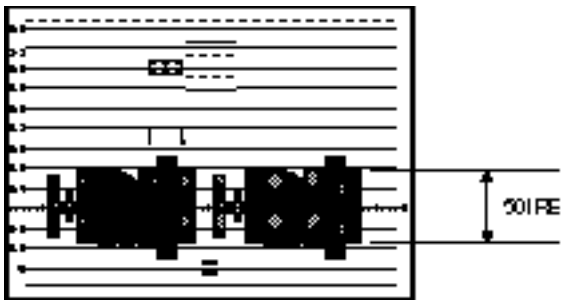
1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "174XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the blue level is 40IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

9-b. B-Y POSITIVE GAIN (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O88 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the blue level is 30IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

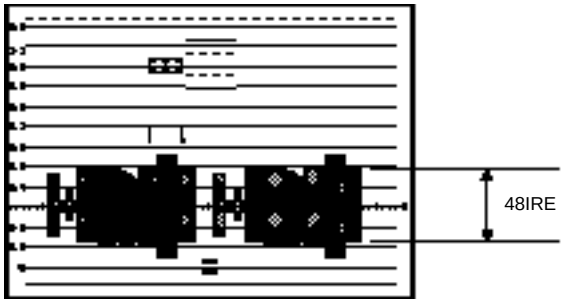
10. B-Y NEGATIVE GAIN (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "175 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the yellow level is 50IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



10-b. B-Y NEGATIVE GAIN (outdoor)

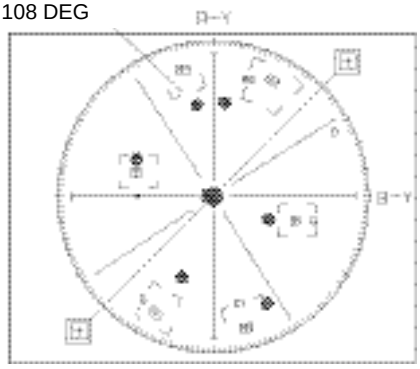
1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O89 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the yellow level is 48IRE.
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



11. R-Y POSITIVE HUE (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "172 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the red vectors is 108˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

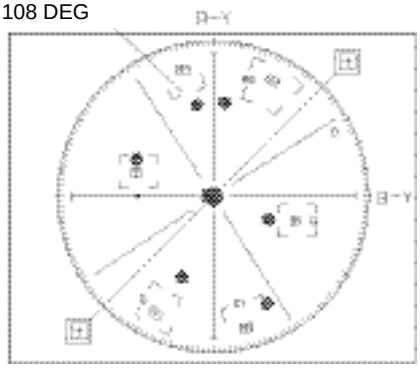
RED VECTOR
108 DEG



11-b. R-Y POSITIVE HUE (outdoor)

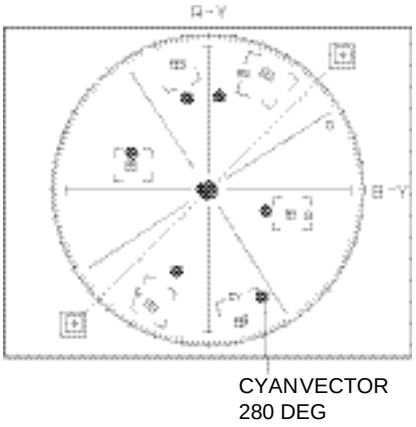
1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O6F XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the red vectors is 108˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

RED VECTOR
108 DEG



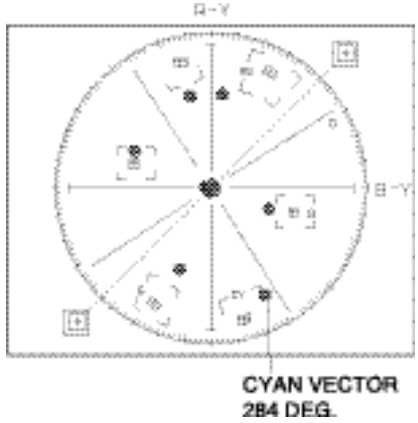
12. R-Y NEGATIVE HUE (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "173 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the cyan vector is 280˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



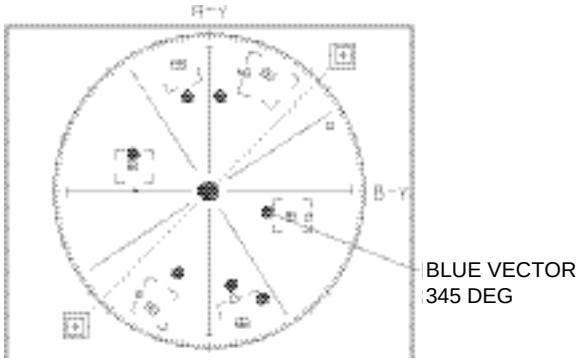
12-b. R-Y NEGATIVE HUE (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O6E XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the cyan vector is 280˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



13. B-Y POSITIVE HUE (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "176 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the blue vector is 345˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

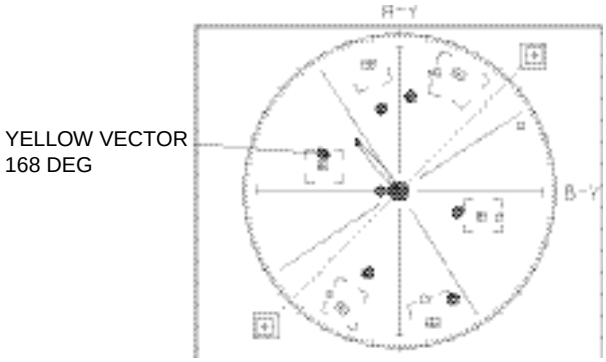


13-b. B-Y POSITIVE HUE (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O71 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the blue vector is 345˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.

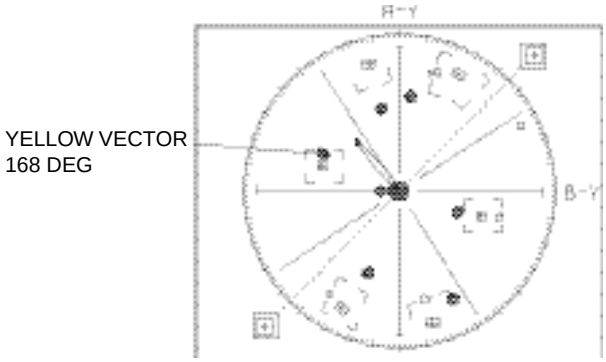
14. B-Y NEGATIVE HUE (indoor)

1) Camera mode & 3100˚ K color bar chart
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "177 XX XX".
4) Ensure that camera picks up image on 3100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the yellow vector is 168˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



14-b. B-Y NEGATIVE HUE (outdoor)

1) Camera mode & 5100˚ K color bar chart (3100°K color bar chart + C16 filter)
2) Connect a video output terminal to a vectorscope and a TV.
3) Press the FF(Mode Up)/REW(Mode Down) button so that OSD shows "O70 XX XX".
4) Ensure that camera picks up image on 5100˚ K color bar chart precisely and the illumination is 1500-2000 Lux.
5) Press the PLAY (Data Up)/STOP (Data Down) so that the yellow vector is 168˚ .
6) Press the START/STOP (Confirm) button to store data.
7) The OSD shows “OK” after finishing the adjustment.



4-3. LCD Adjustment

Notes: For LCD adjustment, use the buttons on the video camera and the remote control.
After each adjustment step is completed, OSD shows "OK".
EEPROM(ICL202) stores confirmed adjustment value of each adjustment step.
After finishing the adjustment, turn power off.

1. How to get into the LCD adjust mode.

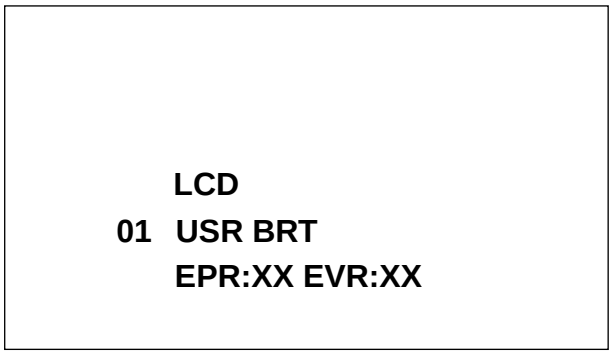
STEP 1

1. Connect the power source (battery / DC cable).
2. Set the "CAMERA / PLAYER" switch to "CAMERA" position.
3. Camera screen and OSD appears.
4. Open housing of the video camera and remove tape.
5. Open the LCD.

STEP2

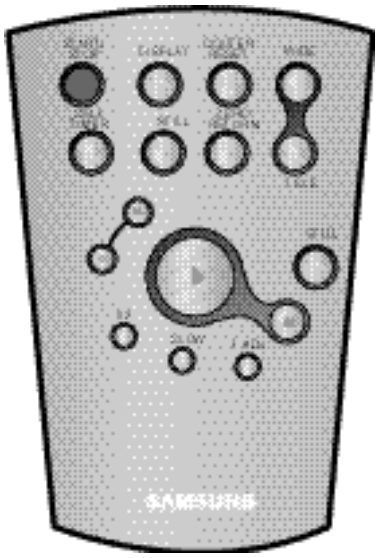
1) Press and hold the "EDIT(+)" button on the video camere and"SELF TIMER" button on the remote control at the same time for more than 5 seconds.

Monitor screen



When monitor OSD shows as above screen, LCD adjustment mode has been activated successfully.

Note : "XX" indicates variable values.



Remote Control Button Location

2. Functions of each button on the Remote Control

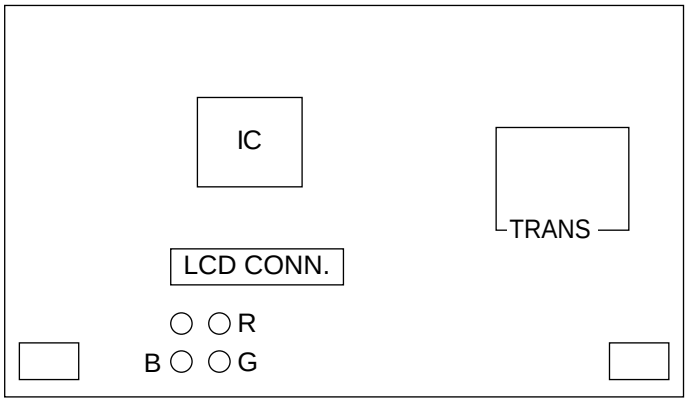
Button	Description
START / STOP (Confirm)	Stores changed value in the adjustment mode.
FF (Mode Up)	Shift adjustment address to left.
REW (Mode Down)	Shift adjustment address to right.
PLAY (Data Up)	Up value.
STOP (Data Down)	Down value.

Note: In service adjustment mode, button names are different from those in customer function control mode.

3. Adjust Mode

	NTSC	PAL
00	55	55
01	55 (adjust)	55 (adjust)
02	80 (adjust)	80 (adjust)
03	83 (adjust)	83 (adjust)
04	80 (adjust)	80 (adjust)
05	89	89
06	89	89
07	FF	FF
08	86	86
09	47	47
0A	55	55
0B	60	60
0C	80	80
0D	17	17
0F	17	17
10	FF	FF
11	04	04
12	00	00
13	80	81
14	0C	0C
15	00	00
16	0A	0A
17	15	15
18	55	55
19	02	02
1A	02	02

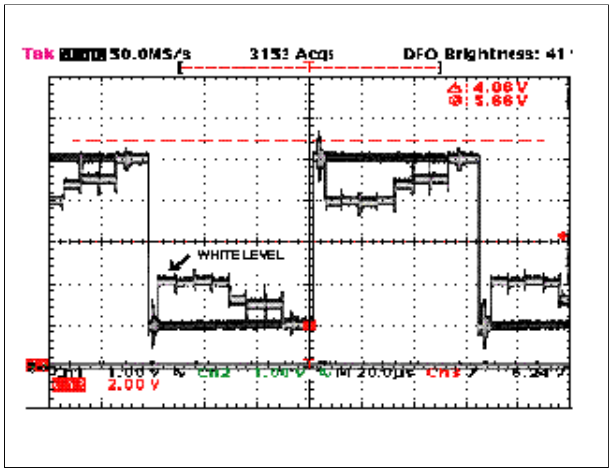
4. How to adjust



Address	Name
01	USR BRT
02	S, BRT R
03	S, BRT B

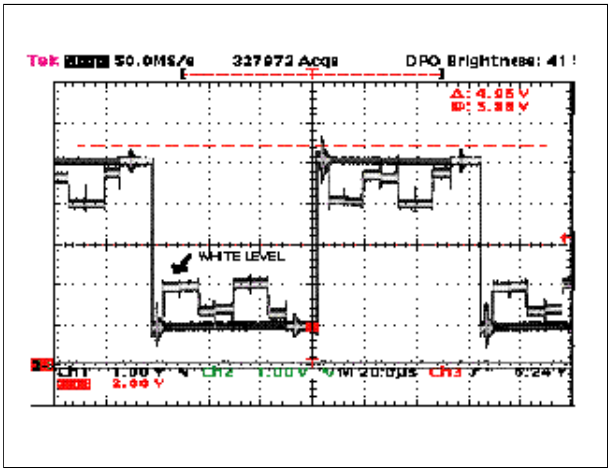
(R, G, B waveform on each TP)

3) Brightness
   a) Connect a probe to TP-G
   b) Check the wave form of Tp-G on screen of oscilloscope
   c) Move address to (01 USR BRT) USR BRT address number is 01 check and understand following figure.



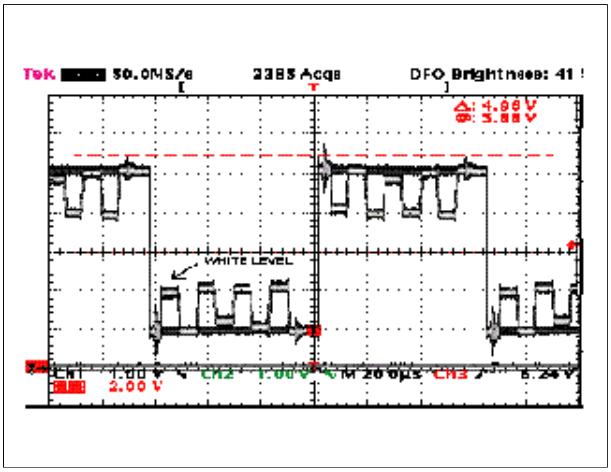
G

4) Adjustment of TP-R
   a) Connect a probe (No. 1) to TP-G
   b) Connect a probe (No. 2) to TP-G
   c) Move address to 02 S, BRT R
   d) Compare the white level of TP-G with the white level of TP-R
   e) If not some position you must adjust the white level of TP-R on the white level of TP-G (There are usage of adjustment in Function of each button on the remote control)
   f) Make sure that “OK” is displayed on LCD screen



R

5) Adjustment of TP-B
How to adjust (TP-B) is on same process of TP-R
Don't forget! to you must compare TP-G with TP-B too



B

4-4. CVF Adjustment

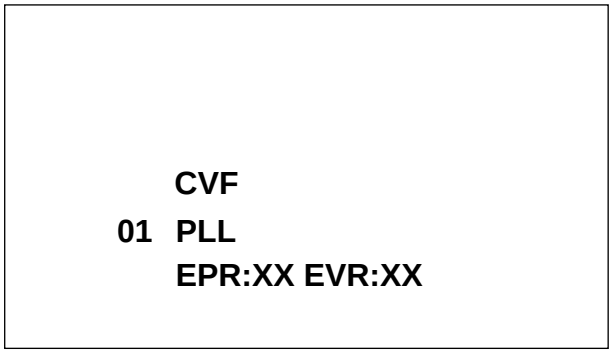
Notes : For CVF adjustment, use the buttons on the video camera and the remote control.
After each adjustment step is completed, OSD shows "OK".
EEPROM(ICV02) stores confirmed adjustment value of each adjustment step.
After finishing the adjustment, turn power off.

1. How to get into the CVF adjust mode.

STEP 1

1) Connect the power source (battery / DC cable).
2) Set the "CAMERA / VCR" switch to "CAMERA" position and LCD is close.
3) Camera screen and OSD appears.
4) Open housing of the video camera and remove tape.

Monitor screen

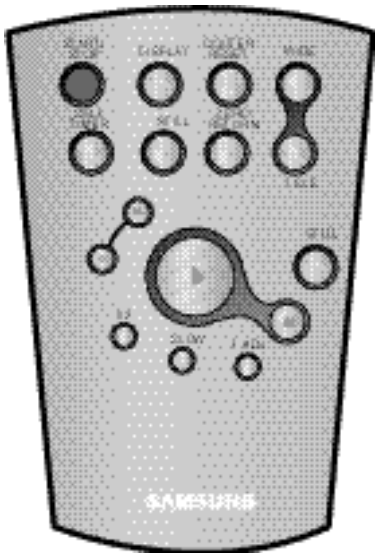


When monitor OSD shows as above screen, CVF adjustment mode has been activated successfully.

Note : "XX" indicates variable values.

STEP 2

1) Press and hold the "EDIT(+)" buttonon the video camera and "SELF TIMER" button on the remote control at the same time for more than 5 seconds.



Remote Control Button Location

2. Functions of each button on the Remote Control

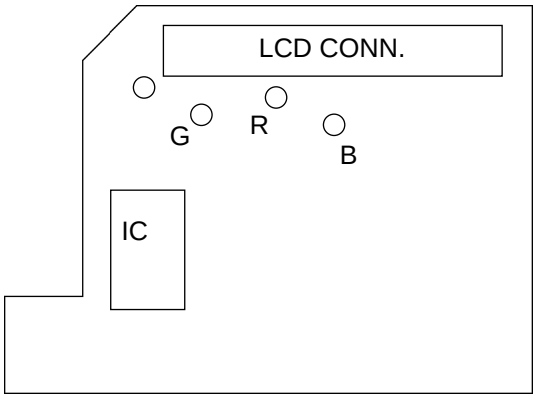
Button	Description
START / STOP (Confirm)	Stores changed value in the adjustment mode.
FF (Mode Up)	Shift adjustment address to left.
REW (Mode Down)	Shift adjustment address to right.
PLAY (Data Up)	Up value.
STOP (Data Down)	Down value.

Note: In service adjustment mode, button names are different from those in customer function control mode.

3. Adjust Mode

	NTSC	PAL
00	55	55
01	55 (adjust)	55 (adjust)
02	90 (adjust)	90 (adjust)
03	90 (adjust)	90 (adjust)
04	80 (adjust)	80 (adjust)
05	89	89
06	89	89
07	FF	FF
08	86	86
09	00	00
0A	80	80
0B	60	60
0C	80	80
0D	17	17
0F	19 (adjust)	19 (adjust)
10	00	00
11	04	04
12	00	00
13	00	01
14	0C	0C
15	06	06
16	0A	0A
17	15	15
18	FF	FF
19	FF	FF
1A	FF	FF

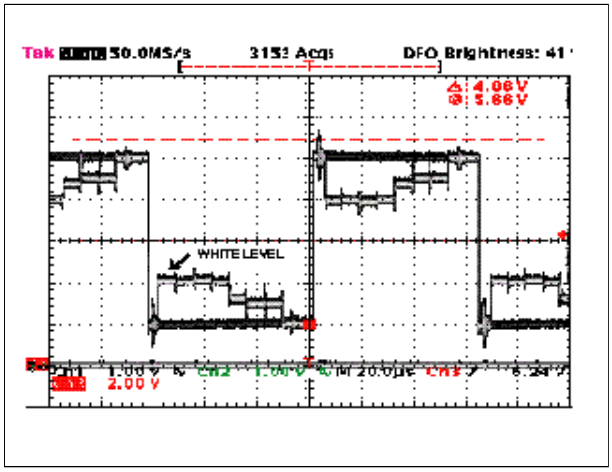
4. How to adjust



(R, G, B waveform on each TP)

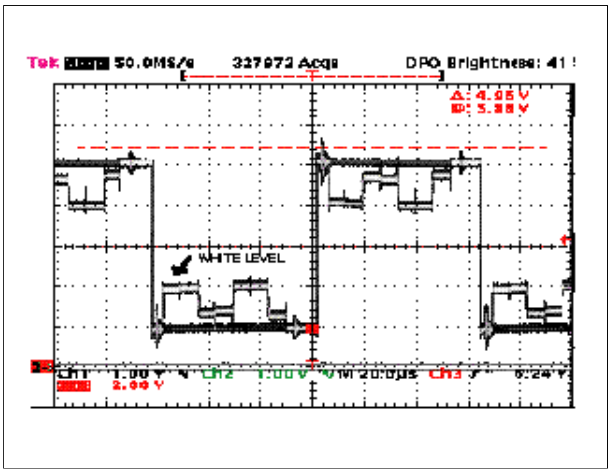
Address	Name
01	USR BRT
02	S, BRT R
03	S, BRT B

3) Brightness
   a) Connect a probe to TP-G
   b) Check the wave form of Tp-G on screen of oscilloscope
   c) Move address to (01 USR BRT) USR BRT address number is 01 check and understand following figure.



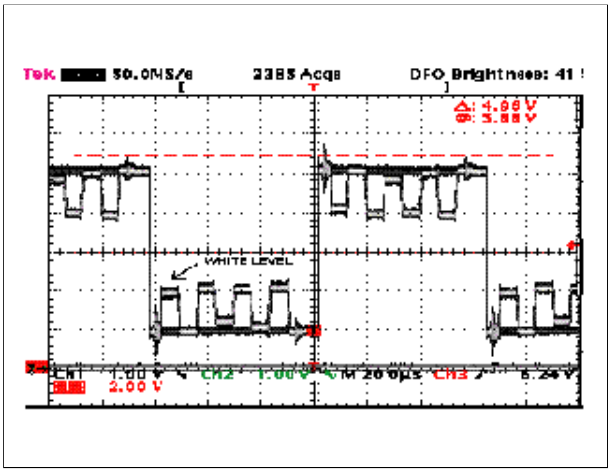
G

4) Adjustment of TP-R
   a) Connect a probe (No. 1) to TP-G
   b) Connect a probe (No. 2) to TP-G
   c) Move address to 02 S, BRT R
   d) Compare the white level of TP-G with the white level of TP-R
   e) If not some position you must adjust the white level of TP-R on the white level of TP-G (There are usage of adjustment in Function of each button on the remote control)
   f) Make sure that “OK” is displayed on LCD screen

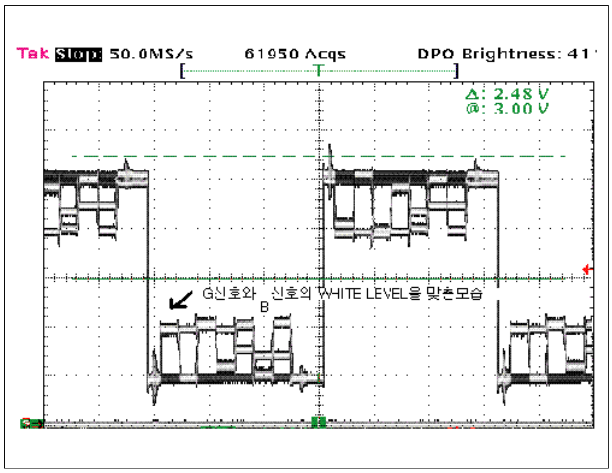


R

5) Adjustment of TP-B
How to adjust (TP-B) is on same process of TP-R
Don’t forget! you must compare TP-G with TP-B too

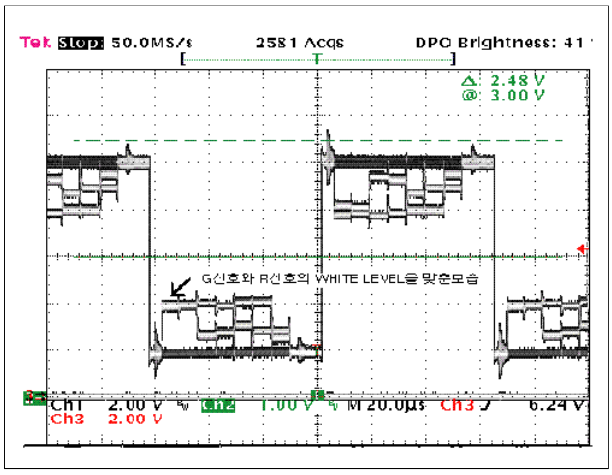


B



(waveform of G and B)

Adjust so that white level of G and B signal is same.



(waveform of G and R)

Adjust so that white level of G and R signal is same.

4-5. EVF Adjustment

4-5-1. EVF adjustment Preparation

STEP 1

1) Connect the power source (battery/DC cable).
2) Set the "POWER(CAMERA/PLAY-ER)" switch to "CAMERA" position.

STEP 2

Press and hold the "EDIT(+)" button and "SELFTIMER" button on the video camera at the same time for more than 5 seconds.

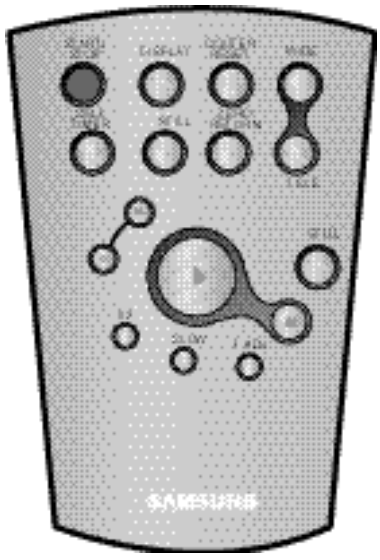
STEP 3

Press the “DISPLY” button to make color bar appear.

LCD
01 MODE 1
EPR:XX EVR:XX

Monitor screen

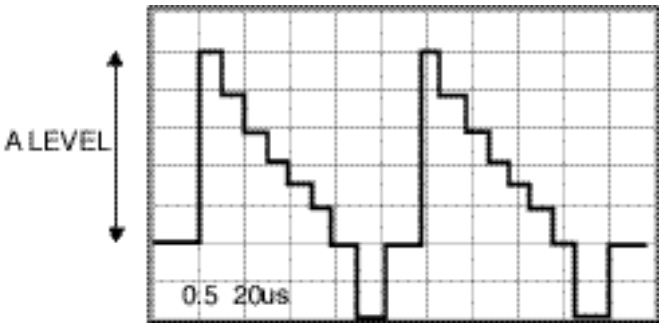
Note : "XX" indicates variable values.

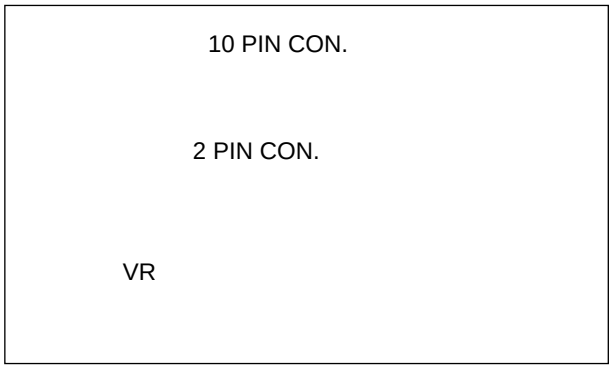


Remote Control Button Location

4-5-2. EVF adjustment

1) VIDEO GAIN
   a) Connect an oscilloscope probe to TP-V.
   b) Adjust the VRE02 so that A level is 2.5 Vp-p





Location of Test Point

MEMO

5. Exploded View and Parts List

5-1 Ass'y-Camera - 5-2

5-2 Ass'y EVF (SCD180) - 5-4

5-3 Ass'y CVF (VP-D190MS/D190MSi) - - - - - - - - - - - - - 5-6

5-4 Ass'y LCD - 5-8

5-5 Ass'y LEFT - 5-10

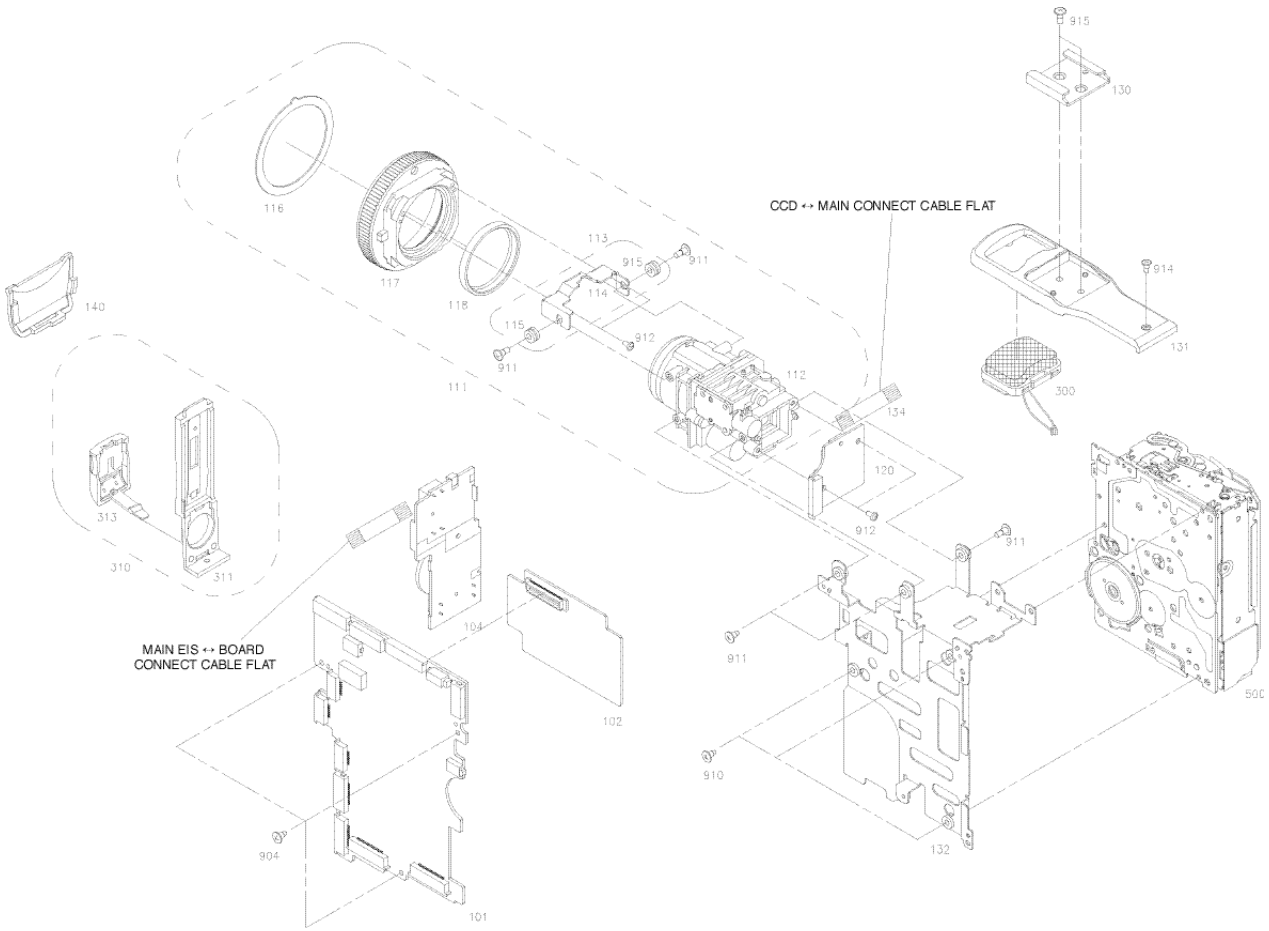
5-6 Ass'y HOUSING (5) - 5-12

5-7 Ass'y RIGHT - 5-14

5-8 Mechanical Parts (1) - 5-16

5-9 Mechanical Parts (2) - 5-18

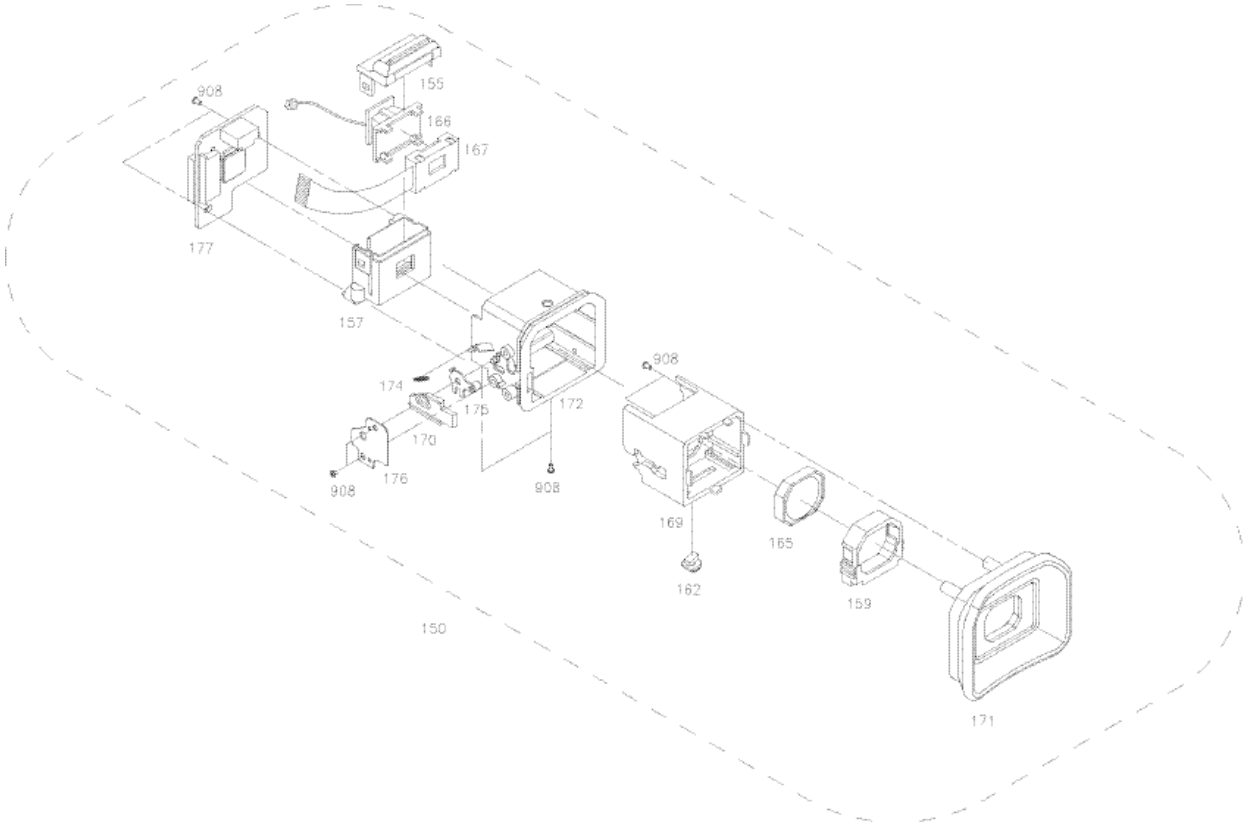
5-1 Ass'y-Camera



Loc. No	New Part No	Description and Specification	Remark
101	AD97-03985K	ASSY-MAIN BOARD	VP-D190MS
	AD97-03985L	ASSY-MAIN BOARD	VP-D190MSi
	AD97-03985J	ASSY-MAIN BOARD	SCD180
102	AD97-03986A	ASSY-AUDIO BOARD;-	
104	AD97-03941A	ASSY-PCB EIS;	
111	AD97-03626A	ASSY-ZOOM LENS;12X ZOOM	
113	AD97-03824A	ASSY-BRACKET LENS;-	
116	AD64-00639A	INLAY-LENS;AL 0.6T	
117	AD67-00140A	LENS-HOOD;AL	
118	AD73-00063A	RUBBER-LENS;SILICONE 40	
119	AD60-00042A	SPACER-CCD;SILICON BLK	
120	AD97-03879A	ASSY-CCD;PAL	
	AD97-03878A	NTSC	
130	AD61-00778A	BRACKET-ACC SHOE;STS304 T0.8	
131	AD64-00640A	CASE-TOP;ABS 94HB	
132	AD97-03842A	ASSY-CHASSIS DECK;ASSY	
140	AD64-00646A	WINDOW-REMOCON;PC VIOLET	
300	AD97-03841A	ASS'Y-MIC;	
310	AD97-04010A	ASSY-FRONT;D5-PJ	
313	AD97-04023A	ASSY-COVER S/JACK;ASSY	
500	AD97-03360A	ASSY-DECK;CSM2000	
904	6009-001284	SCREW-MACHINE; +PH(0.5),M1.4XL2.0,NI PLT,SWRCH18A,FP	
910	6001-001528	SCREW-SPECIAL; M1.4XL4.7(2.5),ZPC(YEL),SWRCH18A,MACHINE	
911	6009-001285	SCREW-SPECIAL; +CH,M1.7XL4.7(2.5),ZPC(YEL),SWRCH18A,B	
912	6001-001531	SCREW-MACHINE; +CH,M1.4(0.3)XL3.0,BZN(BLACK),SWCH1018A	
914	AC60-10028A	SCREW-MACHINE; +CH,M1.7XL3.0,BZN(BLACK),SWCH1018A, 2	
915	6001-001536	SCREW-MACHINE; +FH M2 X 5 WHITE	
133	3809-001146	CABLE-FLAT	
134	AD97-04149A	CABLE-FLAT	

.

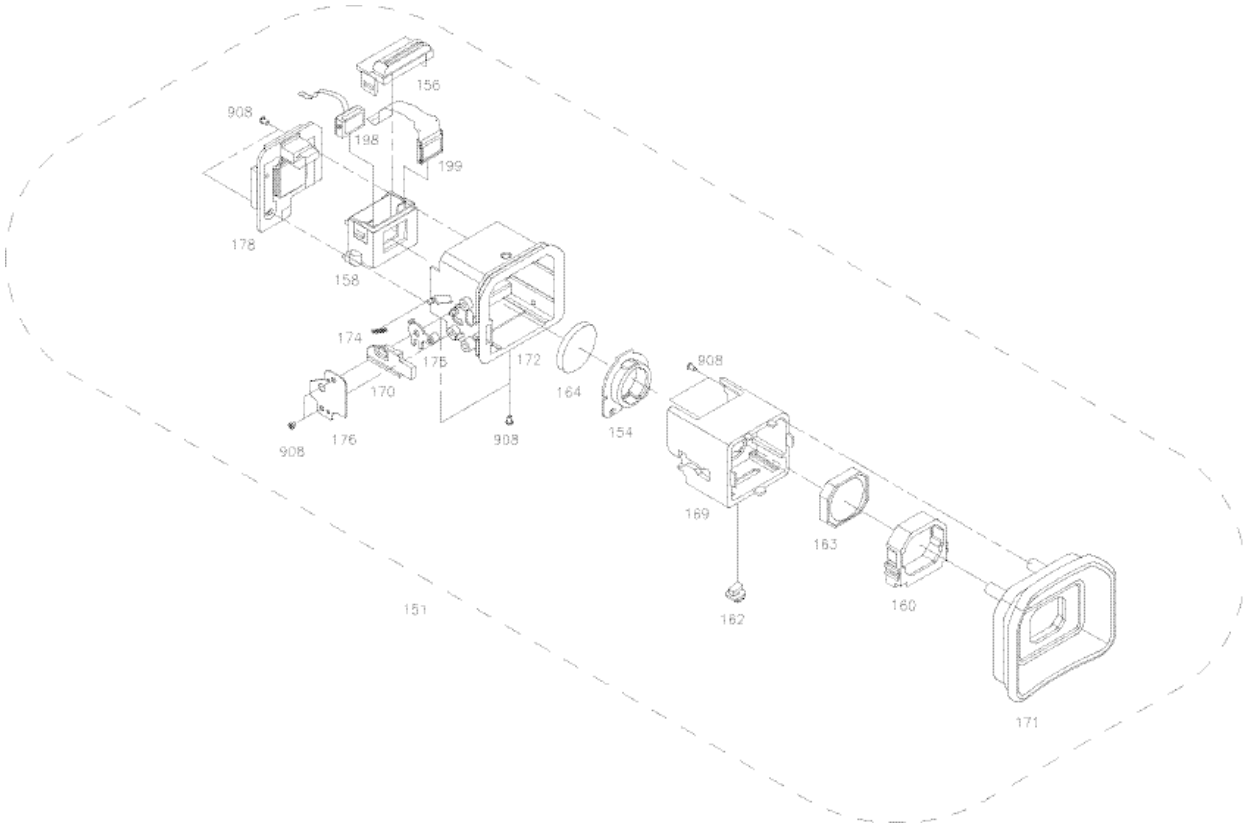
5-2 Ass'y EVF (SCD180)



Loc. No	New Part No	Description and Specification	Remark
150	AD97-03635A	ASSY-EVF;EVF(NTSC)	SCD180
155	AD63-00268A	COVER-LCD/LIGHT EVF;ABS 94-HB BLK	
157	AD61-00768A	HOLDER-LCD/LIGHT EVF;PC+G/F 20% BLK	
159	AD61-00769A	HOLDER-LENS EVF;ABS 94-HB BLACK	
161	AD64-00636A	KNOB-EVF;POM BLACK	
165	AD67-00142A	LENS-EVF UP G3;PMMA	
166	AD97-04174A	ASSY BL;EVF(0.24"")	
167	AD07-00009A	LCD-PANNEL;EVF(0.24"")	
169	AD61-00770A	BODY-LENS;PC BLACK	
170	AD64-00635A	BUTTON-LOCK;POM BLACK	
171	AD97-03982A	ASS'Y-EYE/CUP;ASSY BLACK	
172	AD72-00027A	HOUSING-EVF;PC BLACK	
174	AD61-00772A	SPRING-LOCK ;SWPB T0.2	
175	AD59-00074A	UNIT-LOCK ROTATE;SUS	
176	AD63-00283A	COVER-BUTTON-LOCK;SUS T0.25	
177	AD97-03698A	ASSY-EVFBOARD;EVF(PAL)	
908	6003-001292	SCREW-TAPTITE;+CH(0.3),M1.7XL3.0,ZPC(BLK)	

.

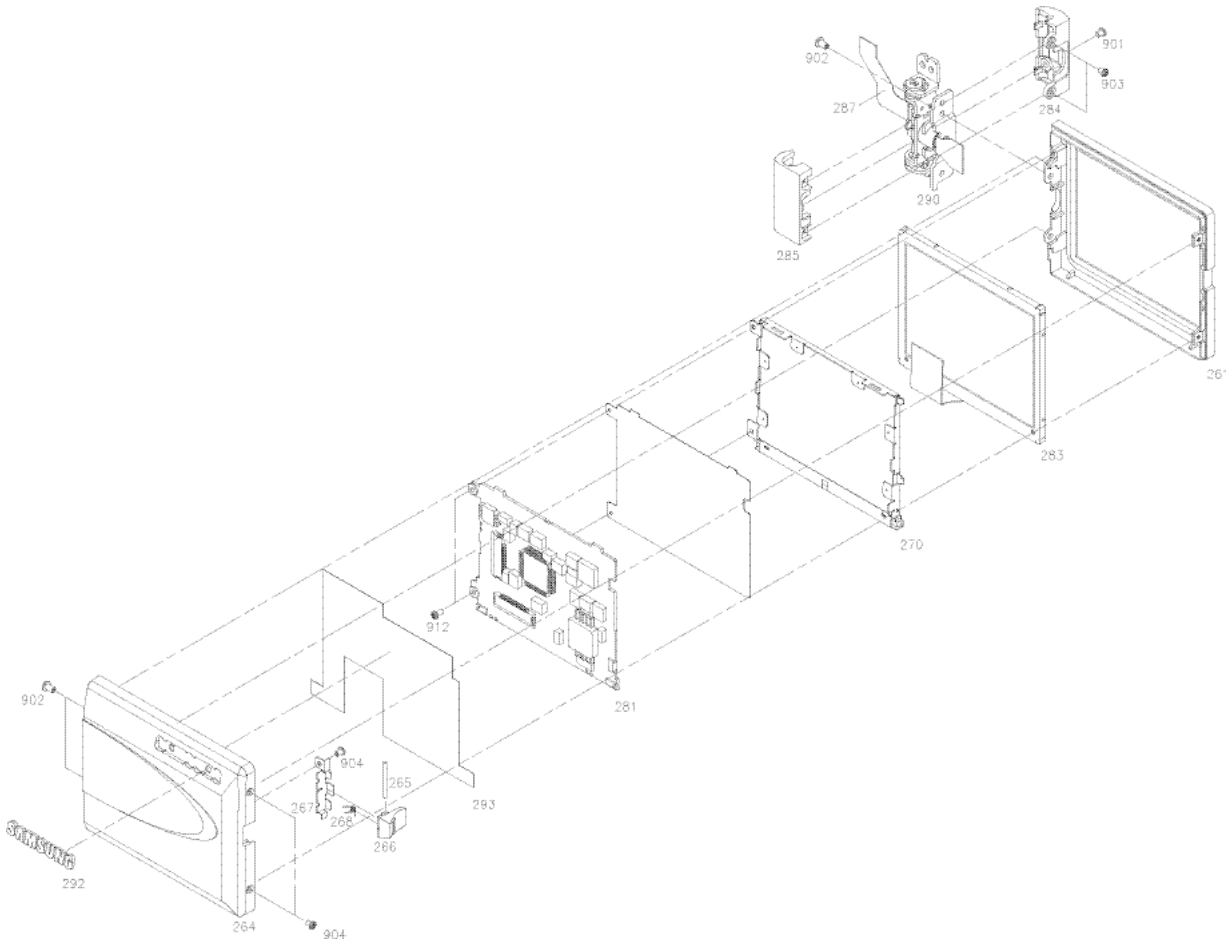
5-3 Ass'y CVF (VP-D190MS/D190MSi)



Loc. No	New Part No	Description and Specification	Remark
151	AD97-03634A	ASSY-CVF	VP-D190MS/D190MSi
154	AD72-00026A	CAP-LENS CVF;ABS 94-HB BLK	
156	AD63-00266A	COVER-LCD/LIGHT CVF;ABS 94-HB BLK	
158	AD61-00765A	HOLDER-LCD/LIGHT CVF;PC+G/F 20% BLK	
160	AD61-00766A	HOLDER-LENS CVF;ABS 94-HB BLACK	
162	AD64-00674A	KNOB-CVF;POM BLACK	
163	AD67-00141A	LENS-CVF UP G1;PMMA	
164	AD67-00026A	LENS-G2 CVF;PC	
169	AD61-00770A	BODY-LENS;PC BLACK	
170	AD64-00635A	BUTTON-LOCK;POM BLACK	
171	AD97-03982A	ASS'Y-EYE/CUP;ASSY BLACK	
172	AD72-00027A	HOUSING-EVF;PC BLACK	
174	AD61-00772A	SPRING-LOCK ;SWPB T0.2	
175	AD59-00074A	UNIT-LOCK ROTATE;SUS	
176	AD63-00283A	COVER-BUTTON-LOCK;SUS T0.25	
178	AD97-03874A	ASSY-CVF BOARD	
198	AD97-03478A	ASSY BL;CVF(0.44"")	
199	AD97-00008A	LCD-PANNEL;CVF(0.44"")	
908	6003-001292	SCREW-TAPTITE;+CH(0.3),M1.7XL3.0,ZPC(BLK), SWRCH18A,B	

.

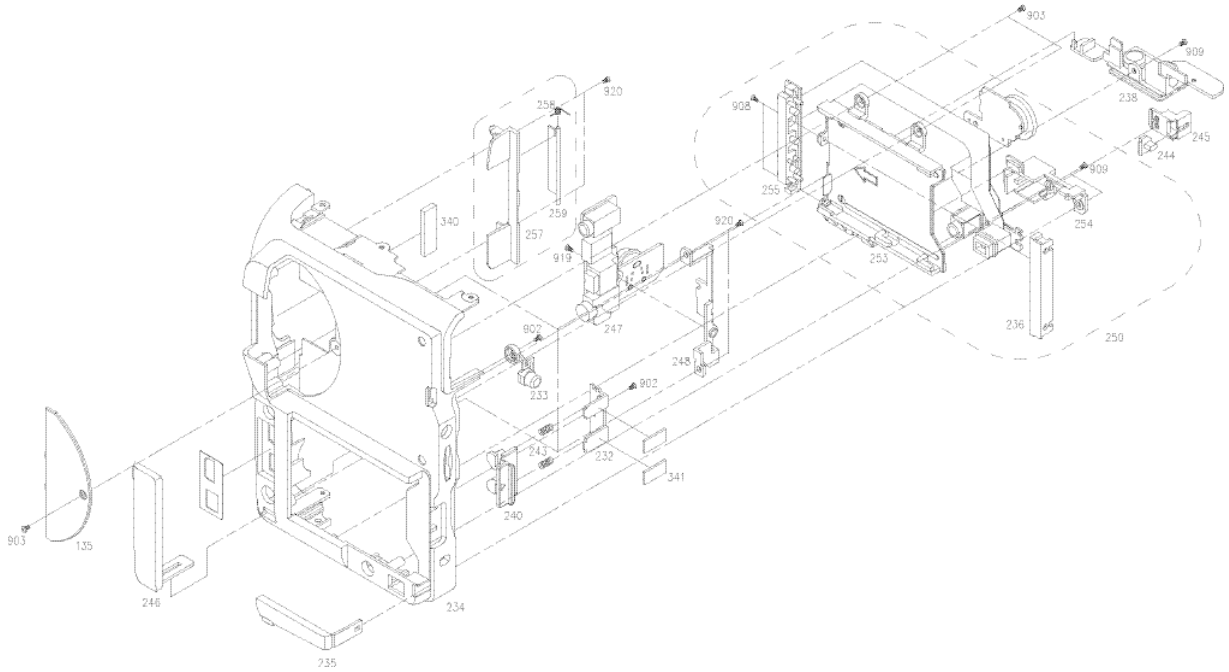
5-4 Ass'y LCD


902
901
903
287
284
290
285
267
283
270
912
281
902
904
265
268
293
266
292
264
904

Loc. No	New Part No	Description and Specification	Remark
261	AD64-00897A	CASE-LCD BOTTOM	
262	AD62-00018A	INSULATION;BE-CU	
264	AD64-00896J	CASE-LCD TOP	VP-D190MS
	AD64-00896K	CASE-LCD TOP	VP-D190MSi
	AD64-00896M	CASE-LCD TOP	SCD180
265	AD61-00829A	SHAFT-LCD;SUS303	
266	AD64-00663A	KNOB-LCD;ABS 94HB	
267	AD61-00830A	BRKT-HOLDER;SUS304 1/2H T0.3	
268	AD61-00856A	SPRING-LCD;SUS304-WPB T0.2	
270	AD97-03865A	ASSY-BACK LIGHT;ASSY	
281	AD97-03873A	ASSY LCD BOARD;ASSY	
283	AD07-00024A	LCD DISPLAY;LCD SONY	
284	AD63-00275A	COVER-HINGE BOTTOM;ABS94HB L/GRAY (HF06601/G6238)	
285	AD63-00370A	COVER-HINGE TOP;Mg	
287	AD97-04147A	ASSY-LCD FPC;	
290	AD97-03840A	ASSY-HINGE;	
292	AD64-00808A	BADGE-SAMSUNG(26)	
293	AD63-00297A	SHEET-LCD;PET T0.05 D5-PJ BLK	
901	6001-000805	SCREW MACHINE;+CH(0.5),M1.7X3,NI PLT, SWRCH10A,U,	
902	6001-001526	SCREW MACHINE;+CH(0.3),M1.7XL3.0,NI PLT, SWRCH18A,FP	
903	6001-001527	SCREW MACHINE;+CH(0.3),M1.7XL2.0,NI PLT, SWRCH18A,FP	
904	6001-001528	SCREW MACHINE;+PH(0.5),M1.4XL2.0,NI PLT, SWRCH18A,FP	
912	6001-001285	SCREW MACHINE;+BH,M1.4(2.4)XL3.0,BZN(BLACK), SWCH1018A	

.

5-5 Ass'y LEFT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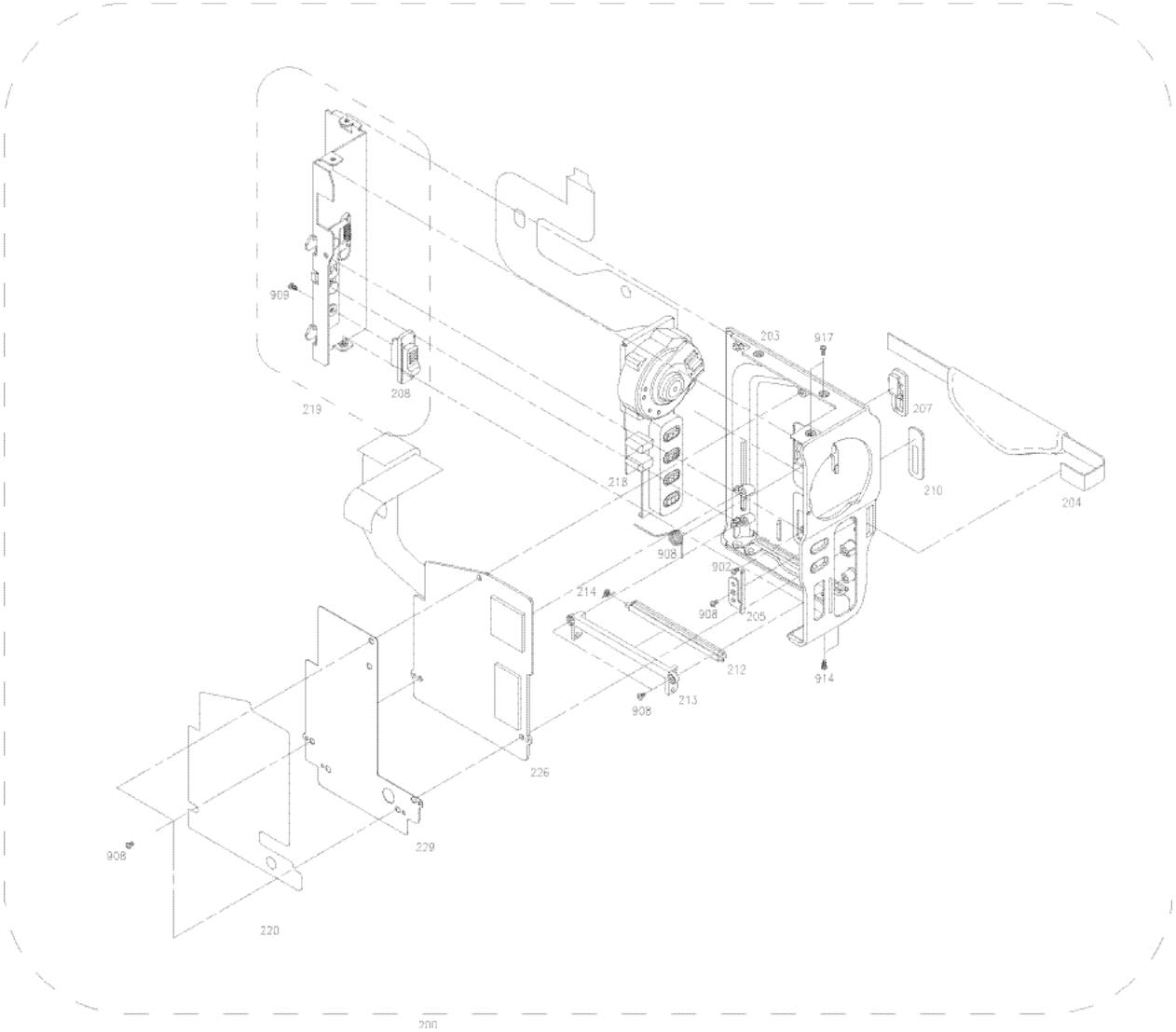
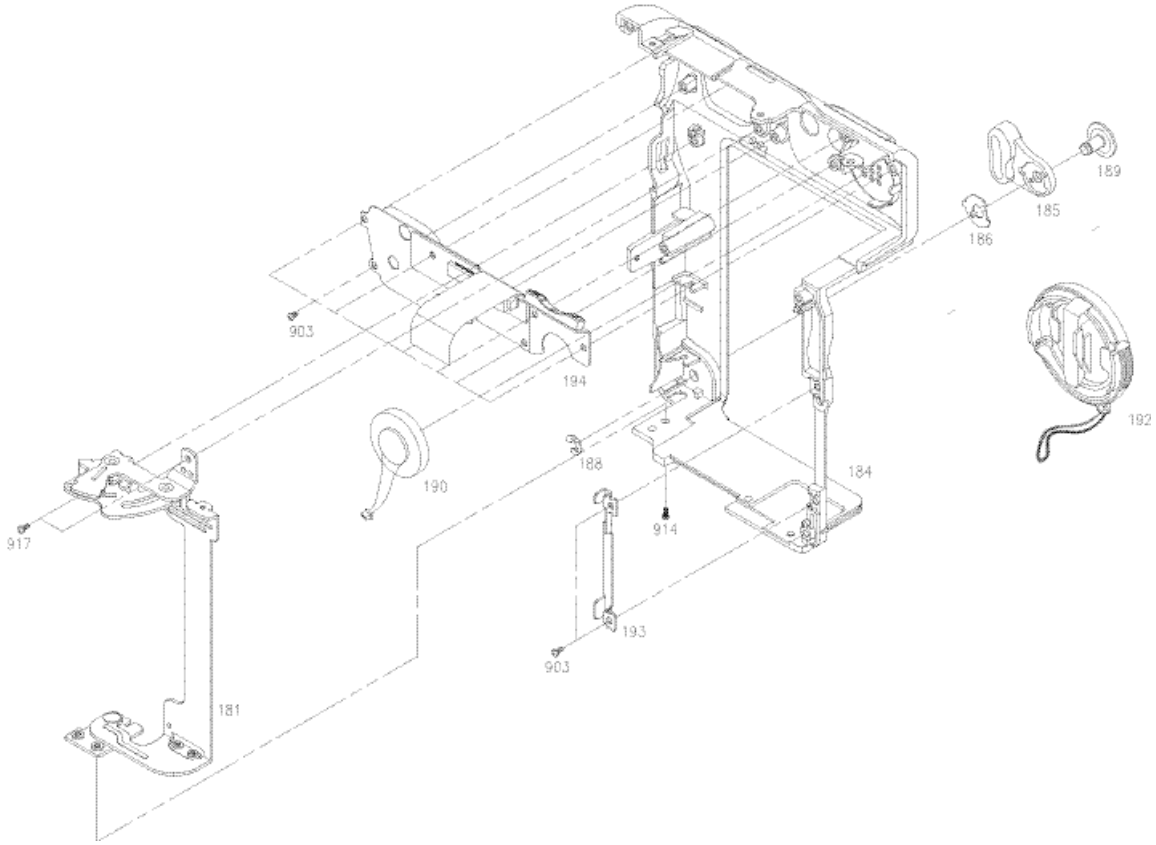
Loc. No	New Part No	Description and Specification	Remark
135	AD63-00285A	COVER-CONNECTOR;	
232	AD61-00824A	BRACKET-BATTERY EJECT;SUS T1.0	
233	AD64-00658A	BUTTON-MENU;ABSB 94HB	
234	AD64-00642A	CASE-LEFT;Mg	
235	AD63-00274A	COVER-JACK DC;PE	
236	AD63-00280A	COVER-TERMINAL;PC V0+GLASS 15%	
238	AD61-00793A	HOLDER-TRIPOD;AL	
240	AD64-00661A	KNOB-BATTERY EJECT;AL	
243	AD61-00798A	SPRING-BATTERY EJECT;SWPB T0.2	
244	AD64-00667A	INDICATOR-CHARGE;PMMA RED	
245	AD61-00835A	HOLDER-CHARGE;ABS 94HB BLK	
246	AD97-03831A	ASSY-DOOR JACK;	
247	AD97-03832A	ASSY-JACK BOARD;	
248	AD61-00838A	BRACKET-AV;SUS T1.0	
250	AD97-03833A	ASSY-HOUSING BATTERY;	
253	AD72-00030A	HOUSING-BATTERY;PC V0	
254	AD61-00837A	HOLDER-DC JACK;PC+ABS	
255	AD97-03867A	ASSY-TERMINAL DC;	
257	AD63-00271A	COVER-LEFT;PC ABS	
258	AD61-00840A	SPRING-COVER FPC;SWPB T0.2	
259	AD63-00284A	COVER-HINGE FPC;PC/ABS	
340	AD69-000295A	PAD-SPONGE HINGE;	
341	AD62-00021A	INSULATION-BATTERY;	
902	6001-001526	SCREW-MACHINE;MACHINE 1.7 X 3	
903	6001-001527	SCREW-MACHINE;MACHINE 1.7 X 2	
908	6003-001292	SCREW-TAP;TAP1.7 X 3	
909	6003-001293	SCREW-TAPTITE	
919	AC60-10024A	SCREW-MACHINE	
920	6002-001134	SCREW-TAP	

5-6 Ass'y HOUSING (5)



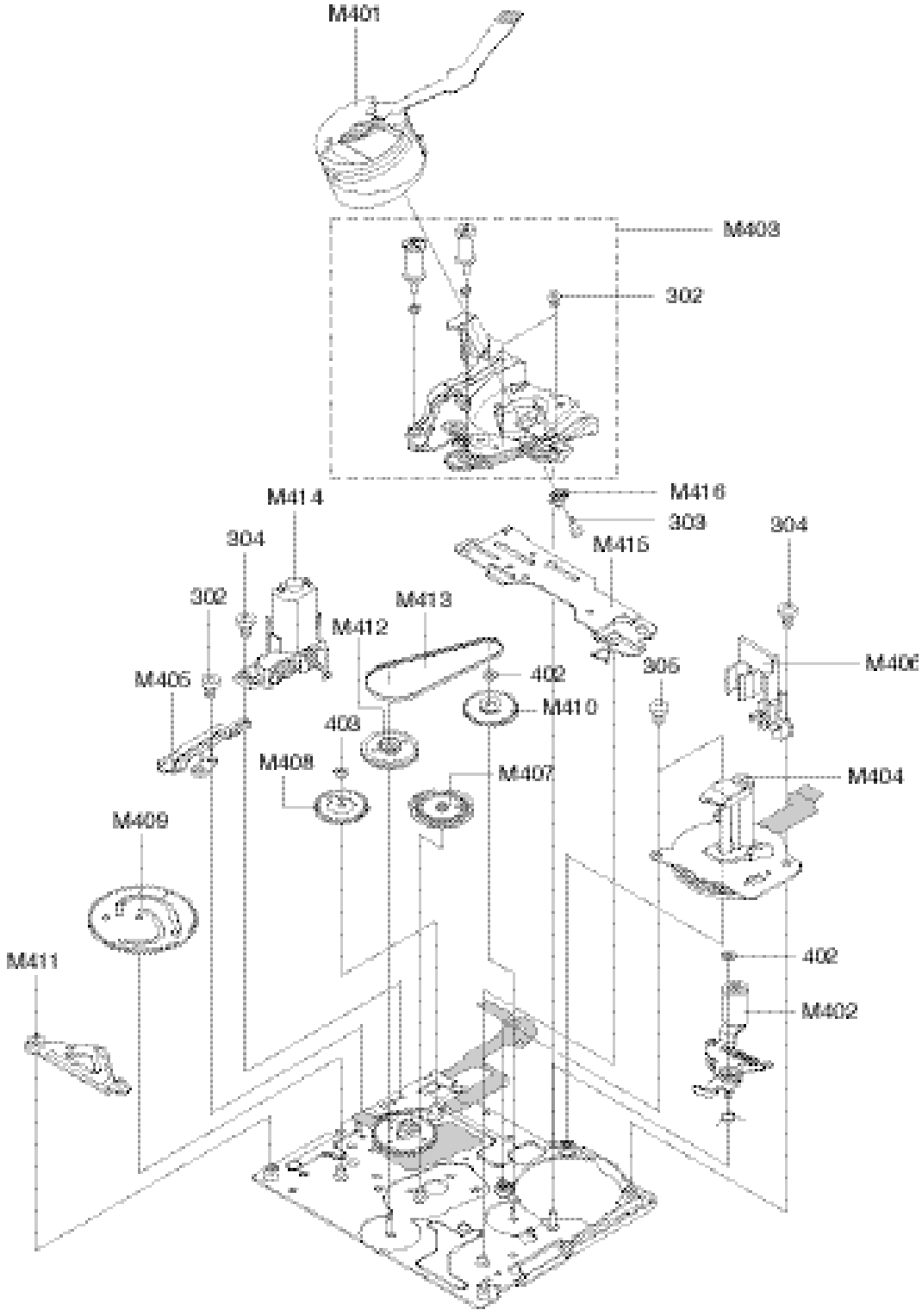
Loc. No	New Part No	Description and Specification	Remark
200	AD97-05529A	ASSY-COVER HOUSING(MS)	
203	AD63-00354A	COVER-HOUSING;Mg	
204	AD97-03828A	ASSY-BELT GRIP;ASSY	
205	AD61-00809A	BRACKET-GRIP BACK;SUS304 1/2H T0.5	
207	AD64-00650A	KNOB-CARD EJECT;ABS 94HB	
208	AD64-00651A	KNOB-TAPE EJECT;ABS 94HB	
210	AD64-00649A	WINDOW-CARD;PVC CLR	
212	AD64-00652A	DOOR-CARD;ABS 94HB	
213	AD61-00812A	HOLDER-DOOR CARD;ABS 94HB	
214	AD61-00795A	SPRING-DOOR CARD;	
218	AD97-04006A	ASSY-POWER	
219	AD97-03830A	ASSY-BRACKET HOUSING;-	
220	AD63-00305A	SHEET-DSC;PVC T0.1 BLK (70*22)	
226	AD97-04027A	ASSY-PCB DSC;-	
229	AD63-00303A	SHIELD-CASE DSC;SUS T0.1	
902	6001-001526	SCREW-MACHINE;+CH(0.3),M1.7XL3.0,NI PLT, SWRCH18A,FP	
908	6003-001292	SCREW-TAPTITE;+CH(0.3),M1.7XL3.0,ZPC(BLK), SWRCH18A,B	
909	6003-001293	SCREW-TAPPING;+CH(0.3),B,M1.7XL5.0,ZPC(BLK), SWRCH18A	
914	AC60-10028A	SCREW-MACHINE;+CH,M1.7XL3.0,BZN(BLACK), SWCH1018A,2	
917	6001-000877	SCREW-MACHINE;+CH(0.3),M1.7XL3.0,BLACK, SWRCH18A,FP	

5-7 Ass'y RIGHT



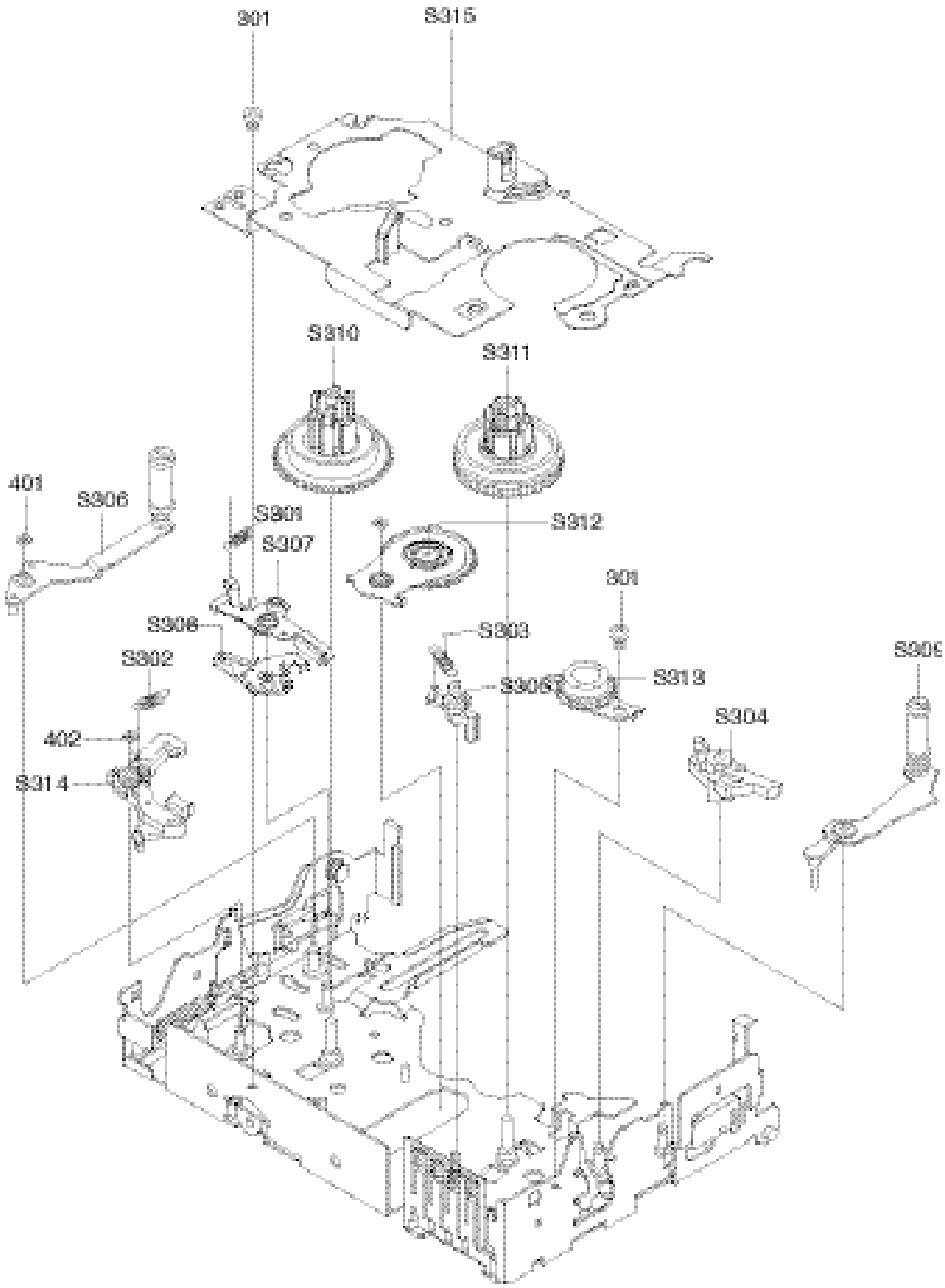
Loc. No	New Part No	Description and Specification	Remark
181	AD97-03825A	ASSY-LINK HOUSING;ASSY	
184	AD64-00641A	CASE-RIGHT;Mg	
185	AD61-00787A	BRACKET-GRIP FRONT;AL	
186	AD61-00818A	BRACKET-WASHER GRIP;SUS T0.3	
188	6044-000274	RING-E;ID2.0,OD5,T0.4,PASS,STS304	
189	AD61-00807A	SHAFT-GRIP;STS	
190	AD97-04289A	ASSY-SPEAKER;ASSY	
192	AD97-04357A	ASSY-CAP HOOD;-	
193	AD61-00845A	BRACKET-LOCK HOLDER;SUS 1/2H T0.5	
194	AD97-04003A	ASSY-ZOOM;-	
903	6001-001527	SCREW-MACHINE;+CH(0.3),M1.7XL2.0,NI PLT, SWRCH18A,FP	
914	AC60-10028A	SCREW-MACHINE;+CH,M1.7XL3.0,BZN(BLACK), SWCH1018A,2	
917	6001-000877	SCREW-MACHINE;+CH(0.3),M1.7XL3.0,BLACK, SWRCH18A,FP	

5-8 Mechanical Parts (1) (MAIN CHASSIS)



Loc. No	New Part No	Description and Specification	Remark
302	6001-001452	SCREW-MACHINE;BH,+,M1.4,L2.5,BLK,SWRCH18	
303	6001-001451	SCREW-MACHINE;TH,+,M1.4,L4.12,ZPC(YEL),S	
304	6001-001331	SCREW-MACHINE;BH,+,M1.4,L3.0,BLK(LOCK),S	
305	AC60-12113A	SCREW;-,BLK,L2.2,S45C-HC,BH,+,-,M1.4	
402	6031-001417	WASHER-PLAIN;POLYSLIDE,-,ID0.8,D3.0,T0.2	
403	6031-001419	WASHER-PLAIN;LUMINA,CUT,ID1.1,OD2.8,T0.2	
M401	AD97-02552A	ASSY-DRUMREV02;AHS+R/T+MOT+PBT,DD-3,ASS	
M402	AD97-02928A	ASSY-ARM-PINCH-FULL;-,DD-3,-	
M403	AD97-02931A	ASSY-DRUM BASE RAIL;-,DD-3,-	
M404	AD31-00028A	MOTOR-CAPSTAN;-,DD-3,-,-,-,-,-,-,-,-,-,-	
M405	AD61-00490A	GUIDE-TENSION CAM;DD-3,SUS430 CP,T0.3,-,	
M406	AD61-00496A	HOLDER-FPC SUB;DD-3,DURACON,-,-,-,-	
M407	AD66-00061A	GEAR-CONNECT;DD-3,POM,0.4/0.5,8.5/23,-,-	
M408	AD66-00064A	GEAR-WHEEL;DD-3,POM,0.3/05,30/8,-,-,PCD	
M409	AD66-00065A	GEAR CAM-MAIN;DD-3,SECC,0.5,50,-,-,PCD 2	
M410	AD66-00069A	GEAR-CAPSTAN;DD-3,DYAMID,0.4,28,-,-,PCD	
M411	AD66-00085A	LEVER-CAM;DD-3,SUS430 CP,T0.5,-,-,-,-,-	
M412	AD66-00098A	GEAR-PULLEY ASSY;DD-3,POM+MAGNET,-,-,-,-	
M413	AD66-62001A	BELT-TIMING;DD-C2R,POLYURETHAN,-,L84,-,-	
M414	AD97-02935A	ASSY-LOADING-MOTOR;-,DD-3,-	
M415	AD97-02987A	ASSY-SLIDE-MAIN;-,DD-3,-	
M416	AD61-00558A	PLATE-S/P BASE;DD-3,SUS632 CSP ,T0.15,-	

5-9 Mechanical Parts (2) (SUB CHASSIS)



Loc. No	New Part No	Description and Specification	Remark
301	6001-001513	SCREW;BH,+,M1.4,D3.0 , WH	
401	6031-001430	WASHER-PLAIN;POLYSLIDER,-,ID0.8,D2.5,T0.	
402	6031-001417	WASHER-PLAIN;POLYSLIDE,-,ID0.8,D3.0,T0.2	
S301	AD61-00509A	SPRING-TENSION;DD-3,SUS304-WPB,•'0.12,-,	
S302	AD61-00513A	SPRING-BRAKE S;DD-3,SUS304-WPB,•'0.18,-,	
S303	AD61-00659A	SPRING-MAIN BRAKE T;DD-3,SWP-B,•'0.16,-,	
S304	AD66-00090A	LEVER-EJECT;DD-3,POM,-,-,-,-,-,-	
S305	AD66-00093A	BRAKE-MAIN T;DD-33,NYLON,-,-,-,-	
S306	AD66-00108A	ARM-TENSION-ASSY;DD-3,SUS304 CP+ETC,-,-,	
S307	AD97-02932A	ASSY-BRAKE-TENSION;-,DD-3,-	
S308	AD97-02933A	ASSY-RELEASE-T;-,DD-3,-	
S309	AD97-02934A	ASSY-REVIEW-ARM;-,DD-3,-	
S310	AD97-02938A	ASSY-REEL-DISK-S;-,DD-3,-	
S311	AD97-02939A	ASSY-REEL-DISK-T;-,DD-3,-	
S312	AD97-02940A	ASSY-IDLER;-,DD-3,-	
S313	AD97-02941A	ASSY-BRAKE-PULLEY;-,DD-3,-	
S314	AD97-02942A	ASSY-BRAKE-S;-,DD-3,-	
S315	AD97-02943A	ASSY-COVEER-REEL;-,DD-3,-	

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6. Electrical Parts List

Loc. No	Part No	Desc & Spec	Remark
		ASSY-EIS BOARD	
CI01	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CI02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI03	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
CI04	2203-005221	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	
CI05	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CI06	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI07	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CI08	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CI09	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI10	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
CI11	2203-005221	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	
CI12	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CI13	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CI14	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CI15	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CI16	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CI17	2203-001630	C-CERAMIC,CHIP;330nF,+80-20%,16V,Y5V,TP,	
CI18	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1608	
CI19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI20	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1608	
CI21	2203-001630	C-CERAMIC,CHIP;330nF,+80-20%,16V,Y5V,TP,	
CI22	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CI23	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CI25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI26	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CI27	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CI28	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CI29	2203-000604	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1608	
CI30	2203-000604	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1608	
CNI01	3708-001134	CONNECTOR-FPC/FFC/PIC;11P,0.5mm,SMD-A,SN	
ICI03	1201-001376	IC-OP AMP;75W01,SSOP,8P,110MIL,DUAL,-,PL	
ICI04	1201-001193	IC-OP AMP;2112,SOP,TP,14P,173MIL,QUAD,10	
LI01	2703-000403	INDUCTOR-SMD;22uH,10%,3.2x2.5x2.2mm	
QI01	0501-002128	TR-SMALL SIGNAL;KTC4075,NPN,100mW,USM,TP	
QI02	0501-002128	TR-SMALL SIGNAL;KTC4075,NPN,100mW,USM,TP	
QI03	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
RI01	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI02	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI03	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI04	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RI05	2007-000781	R-CHIP;33OHM,5%,1/10W,DA,TP,2012	
RI06	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI07	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI08	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RI09	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RI10	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	
RI11	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	
RI12	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	
RI13	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	
RI14	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
RI15	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RI16	2007-001026	R-CHIP;560Kohm,5%,1/16W,DA,TP,1608	
RI17	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RI18	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RI19	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
RI20	2007-001026	R-CHIP;560Kohm,5%,1/16W,DA,TP,1608	
RI21	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RI25	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RI26	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RI27	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RI28	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
RI29	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SNI01	3409-001146	SWITCH-DETECTOR;30V,100MA,1POLE,31GF,PUS	
ICI01	AD32-92001B	SENSOR;3V,-,-5to75C,-,0.6V,03JB	
ICI02	AD32-92001A	SENSOR-GYRO;3V,-,-5to75C,-,0.6V,03JA	
LII01	4302-001121	BATTERY-LI(2ND);3.0V,30MAH,-,-,2.8V,-	
REM01	AD32-00007A	MODULE REMOCON;-,KSM-603TM,37.9KHz,940nm	
		ASSY-MAIN BOARD	
B301	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B302	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B303	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B304	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B305	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B306	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B307	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B501	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B502	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
B503	2901-001022	FILTER-EMI SMD;10V,200mA,-,-,1.6x0.8x0.8	
C101	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
C102	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C103	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C104	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C105	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C106	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C108	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	

Loc. No	Part No	Desc & Spec	Remark
C109	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C110	2203-000812	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,100	
C111	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C112	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C113	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C114	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C115	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
C201	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C202	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C203	2404-001254	C-TA,CHIP;220UF,20%,2.5V,-,TP,3.5(L)X2.8	
C204	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C205	2404-001254	C-TA,CHIP;220UF,20%,2.5V,-,TP,3.5(L)X2.8	
C206	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C207	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C208	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C210	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C211	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C212	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C213	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C214	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C215	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C216	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C217	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C218	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C219	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C220	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C221	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C222	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C223	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C224	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C225	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C252	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C255	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C301	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C305	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C306	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C307	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C308	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C309	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C310	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C311	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C312	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C313	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C314	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C315	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C316	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C317	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C318	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C319	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C320	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C321	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C322	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C323	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C324	2203-005344	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1005,	
C325	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C326	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C327	2203-000359	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,1005	
C328	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C329	2203-002338	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,100	
C330	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
C331	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C332	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C334	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C335	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C337	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C338	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C339	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C340	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C341	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C342	2203-005344	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1005,	
C343	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C344	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C345	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C346	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C347	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C348	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C391	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C392	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C397	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C398	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C451	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C502	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C503	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
C504	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
C505	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
C506	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
C508	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C509	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C510	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C511	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	

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C512	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C513	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C514	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C515	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C516	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C517	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C518	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C519	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C520	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C521	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C601	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C602	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C603	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C605	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C606	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C607	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C608	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C609	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C610	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C611	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C612	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
C613	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C616	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C617	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C618	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C619	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C620	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C621	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C622	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C623	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C624	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C625	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
C626	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C627	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C628	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C629	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C630	2203-000489	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1005	
C631	2203-000489	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1005	
C703	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C704	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C705	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C706	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C707	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C708	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C709	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	

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C901	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C902	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C903	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C904	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C905	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C906	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C907	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C908	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C909	2203-000234	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005	
C910	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C911	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C912	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C913	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C914	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C915	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C916	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C917	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C919	2203-006078	C-CERAMIC,CHIP;10000NF,20%,16V,X5R,TP,32	
C920	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C921	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C923	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C924	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C925	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C926	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C927	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C928	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C930	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C931	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C933	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C934	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C936	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C937	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C938	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C940	2203-005921	C-CERAMIC,CHIP;10000NF,20%,4V,X5R,TP,201	
C941	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C942	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C943	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C946	2203-005921	C-CERAMIC,CHIP;10000NF,20%,4V,X5R,TP,201	
C947	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C949	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C950	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C951	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C952	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C954	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C955	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	

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C956	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C957	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C958	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C959	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C961	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C962	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C963	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C964	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C965	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C966	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C967	2203-000359	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,1005	
C968	2203-001432	C-CERAMIC,CHIP;47nF,+80-20%,16V,Y5V,TP,1	
C969	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C970	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C971	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C972	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C973	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C974	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C976	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C977	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C980	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C981	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C982	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C983	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CN101	3708-001236	CONNECTOR-FPC/FFC/PIC;10P,0.5mm,SMD-A,SN	
CN201	3708-001670	CONNECTOR-FPC/FFC/PIC;21P,0.3MM,SMD-A,SN	
CN202	3708-001337	CONNECTOR-FPC/FFC/PIC;16P,0.5mm,SMD-A,SN	
CN204	3711-000922	CONNECTOR-HEADER;BOX,4P,1R,1.25mm,SMD-A,	
CN301	3708-001684	CONNECTOR-FPC/FFC/PIC;23P,0.5MM,SMD-A,SN	
CN302	3708-001134	CONNECTOR-FPC/FFC/PIC;11P,0.5mm,SMD-A,SN	
CN501	3710-001782	CONNECTOR-SOCKET;20P,2R,0.5MM,SMD-S,AU	
CN502	3708-001396	CONNECTOR-FPC/FFC/PIC;22P,0.5MM,SMD-A,SN	
CN503	3710-001783	CONNECTOR-SOCKET;40P,2R,0.5MM,SMD-S,AU	
CN601	3708-001292	CONNECTOR-FPC/FFC/PIC;18P,0.5mm,SMD-A,SN	
CN602	3708-001598	CONNECTOR-FPC/FFC/PIC;19P,0.5MM,SMD-A-T,	
CN603	3708-001235	CONNECTOR-FPC/FFC/PIC;10P,0.5mm,SMD-A,SN	
CN604	3708-001134	CONNECTOR-FPC/FFC/PIC;11P,0.5mm,SMD-A,SN	
CN701	3708-001650	CONNECTOR-FPC/FFC/PIC;39P,0.3MM,SMD-A,SN	
CN901	3708-001405	CONNECTOR-FPC/FFC/PIC;24P,0.5MM,SMD-A,SN	
CNP01	3710-001466	CONNECTOR-SOCKET;20P,2R,0.5mm,SMD-S,AUF	
CNP02	3708-001575	CONNECTOR-FPC/FFC/PIC;22P,0.5mm,SMD-A,SN	
CP01	2404-000157	C-TA,CHIP;1uF,20%,35V,-,TP,3216,-	
CP02	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CP03	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP04	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	

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CP05	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP06	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP07	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP08	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP09	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP10	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP11	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP12	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CP14	2404-000218	C-TA,CHIP;330nF,20%,35V,-,TP,3216,-	
CP15	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
CP16	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP17	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP18	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP19	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP21	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP22	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP23	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP24	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP25	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP26	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP27	2203-000812	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,100	
CP28	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CP29	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP30	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP31	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP32	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP33	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP34	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP35	2203-000359	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,1005	
CP36	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
CP37	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
CP38	2203-001405	C-CERAMIC,CHIP;22nF,+80-20%,25V,Y5V,TP,1	
CP39	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP40	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CP41	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP42	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP43	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP44	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP45	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
CP46	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP47	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP48	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP49	2203-002338	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,100	
CP50	2203-002338	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,100	
CP51	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
CP52	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP53	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP54	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
CP55	2203-000330	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,100	
CP56	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP57	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP58	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP59	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP60	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP61	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP62	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP63	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP64	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
D502	0601-001422	LED;SMD,RED,-,660nm	
D701	0401-001110	DIODE-SWITCHING;-,80V,300MA,SOD-523,TP	
D902	0401-001059	DIODE-SWITCHING;1SS362,80V,80mA,SC-75,TP	
FL901	3301-001296	CORE-FERRITE BEAD;AB,600ohm,4.5x3.2x3mm,	
IC101	1204-001860	IC-VIDEO SYSTEM;LD502W,BGA,48P,-,PLASTIC	
IC201	1204-001861	IC-VIDEO SYSTEM;LD502U,BGA,48P,-,PLASTIC	
IC301	1204-001859	IC-VIDEO SYSTEM;MBG102,BGA,273P,-,PLASTI	
IC391	1204-001946	IC-OSD PROCESSOR;UPD6467GR,SSOP,20P,173M	
IC392	0801-002417	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,49	
IC451	AC14-12012T	IC-OP AMP;TA75S01F(TE85L),QFP,-	
IC501	AD09-00180A	IC MICOM;CXP81960-707R,SC-D180(1¬˜),100	
IC502	1203-001021	IC-VOLTAGE REGULATOR;8423,SOP,8P,251MIL,	
IC601	1003-001241	IC-MOTOR DRIVER;LB11990W,SQPF,64P,-,-,1A	
IC602	AD14-10001C	IC-AMP;NJM2904V,SSOP,OP-AMP	
IC603	AC14-12012T	IC-OP AMP;TA75S01F(TE85L),QFP,-	
IC701	AD09-00167A	IC MICOM;MB91133PMT-G-113,BETA(V0),144P	
IC702	0801-002345	IC-CMOS LOGIC;7S04,INVERTER,SOT-353,5P,4	
IC703	0801-002345	IC-CMOS LOGIC;7S04,INVERTER,SOT-353,5P,4	
IC704	1103-001133	IC-EEPROM;24C020,256x8BIT,SOP,8P,150MIL,	
IC705	0801-002534	IC-CMOS LOGIC;7WH74,D FLIP-FLOP,SSOP,8P,	
IC901	1203-002323	IC-PWM CONTROLLER;MB3881,LQFP,64P,-,PLAS	
IC902	1203-002386	IC-PWM CONTROLLER;MB3817,SSOP,16P,173MIL	
IC903	1203-002643	IC-VOLTAGE REGULATOR;71720,SOT-23,5P,2.9	
ICP01	1003-001065	IC-CLOCK DRIVER;KS7221D,SOP,20P,225MIL,Q	
ICP02	1002-001270	IC-A/D CONVERTER;TLV990BPFB,10,TQFP,48P,	
ICP03	1003-001200	IC-MOTOR DRIVER;UPD16835,SOP,38P,300MIL,	
ICP04	AC14-12012T	IC-OP AMP;TA75S01F(TE85L),QFP,-	
ICP05	1201-001667	IC-OP AMP;12902,SSOP,TP,14P,173MIL,QUAD,	
ICP06	AD13-00011A	IC-DSP;S5C7341X,VP-D73,80P,0 TO 70,TQ	
ICP07	AD09-00156A	IC MICOM;UPD703015BGC-A14-8EU,D5-PJ,100	
ICP08	1103-001134	IC-EEPROM;24C040,512x8BIT,SOP,8P,150MIL,	
L101	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	

Loc. No	Part No	Desc & Spec	Remark
L102	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L103	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
L201	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L202	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L203	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L301	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L302	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L303	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L305	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L306	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L307	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L308	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L391	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L392	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L601	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L705	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L901	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
L902	2703-000408	INDUCTOR-SMD;3.3uH,20%,3.2x2.5x2.2mm	
L903	2703-000409	INDUCTOR-SMD;47uH,10%,3.2x2.5x2.2mm	
L904	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L905	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L906	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L907	2703-001910	INDUCTOR-SMD;68uH,20%,6x6x2.8mm	
L908	2703-001910	INDUCTOR-SMD;68uH,20%,6x6x2.8mm	
L909	2703-000408	INDUCTOR-SMD;3.3uH,20%,3.2x2.5x2.2mm	
L910	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L911	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L912	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L913	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L914	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L915	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L916	2703-000408	INDUCTOR-SMD;3.3uH,20%,3.2x2.5x2.2mm	
L917	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L918	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L919	2703-001867	INDUCTOR-SMD;1UH,20%,2.5X2X1.8MM	
L920	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L921	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L922	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L923	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L924	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L925	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L926	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L927	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L929	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L930	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	

Loc. No	Part No	Desc & Spec	Remark
L931	2703-000408	INDUCTOR-SMD;3.3uH,20%,3.2x2.5x2.2mm	
L932	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
LP01	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LP02	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LP03	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP04	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LP05	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LP06	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP07	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LP08	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP09	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
PS901	3601-001146	FUSE-SURFACE MOUNT;63V,2A,SLOW-BLOW,EPOX	
Q101	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
Q203	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q204	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q206	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q207	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q301	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q451	0505-001610	FET-SILICON;TPCS8302,P,-20V,-5A,60MOHM,1	
Q452	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	
Q453	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q454	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q501	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q503	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
Q504	0504-000172	TR-DIGITAL;RN2104,PNP,100MW,47K/47K,SSM,	
Q507	0501-002373	TR-SMALL SIGNAL;EMX2,NPN,150MW,EMT6,TP,1	
Q508	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q601	0504-000167	TR-DIGITAL;RN1102,NPN,100MW,10K/10K,SSM,	
Q604	0504-000167	TR-DIGITAL;RN1102,NPN,100MW,10K/10K,SSM,	
Q605	0501-000172	TR-SMALL SIGNAL;2SB1121,PNP,500mW,PCP,TP	
Q901	0502-001220	TR-POWER;MCH5702,NPN,700MW,MCPH5,TP,200	
Q902	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	
Q903	0504-001101	TR-DIGITAL;EMD2,NPN/PNP,150MW,22K/22K,EM	
Q904	0504-001101	TR-DIGITAL;EMD2,NPN/PNP,150MW,22K/22K,EM	
Q905	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	
Q906	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q907	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q908	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q909	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q910	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q911	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q912	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q913	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q914	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q915	0505-001609	FET-SILICON;SSM5G01TU,P,-30V,-1A,0.3OHM,	
Q917	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q918	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q920	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q922	0502-001178	TR-POWER;CPH6702,PNP,1300mW,CPH6,TP,200	
QP01	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
QP02	0504-001025	TR-DIGITAL;DTC143EE,NPN,150MW,4.7K,EMT3,	
QP04	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
R100	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R101	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R102	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R103	2007-003013	R-CHIP;2.4KOHM,5%,1/16W,DA,TP,1005	
R104	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R105	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R106	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R107	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R108	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R109	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
R190	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R191	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R192	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R193	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R194	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R195	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R196	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R197	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R201	2007-001301	R-CHIP;68ohm,5%,1/16W,DA,TP,1005	
R202	2007-001301	R-CHIP;68ohm,5%,1/16W,DA,TP,1005	
R203	2007-001301	R-CHIP;68ohm,5%,1/16W,DA,TP,1005	
R210	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R211	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R212	2007-000758	R-CHIP;330Kohm,5%,1/16W,DA,TP,1005	
R213	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R214	2007-007009	R-CHIP;75OHM,5%,1/16W,DA,TP,1005	
R215	2007-007009	R-CHIP;75OHM,5%,1/16W,DA,TP,1005	
R216	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
R217	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R218	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R219	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R220	2007-007009	R-CHIP;75OHM,5%,1/16W,DA,TP,1005	
R221	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R222	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R251	2007-007138	R-CHIP;27KOHM,1%,1/16W,DA,TP,1005	
R252	2007-007589	R-CHIP;68Kohm,1%,1/16W,DA,TP,1005	
R253	2007-007589	R-CHIP;68Kohm,1%,1/16W,DA,TP,1005	
R254	2007-007138	R-CHIP;27KOHM,1%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R255	2007-007589	R-CHIP;68Kohm,1%,1/16W,DA,TP,1005	
R256	2007-007589	R-CHIP;68Kohm,1%,1/16W,DA,TP,1005	
R305	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R306	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R307	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R308	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
R309	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
R310	2007-000831	R-CHIP;39Kohm,5%,1/16W,DA,TP,1005	
R311	2007-000831	R-CHIP;39Kohm,5%,1/16W,DA,TP,1005	
R312	2007-000831	R-CHIP;39Kohm,5%,1/16W,DA,TP,1005	
R313	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R314	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R315	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R316	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R317	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R318	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R319	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R320	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R337	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R338	2007-007001	R-CHIP;3.9KOHM,5%,1/16W,DA,TP,1005	
R339	2007-007095	R-CHIP;390OHM,5%,1/16W,DA,TP,1005	
R340	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R341	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R342	2007-007698	R-CHIP;5.1Kohm,1%,1/16W,DA,TP,1005	
R343	2007-003013	R-CHIP;2.4KOHM,5%,1/16W,DA,TP,1005	
R344	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R345	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R346	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R347	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R348	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R349	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R350	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R352	2011-001397	R-NETWORK;47KOHM,5%,1/16W,L,CHIP,8P,TP	
R353	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R354	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R356	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R357	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R358	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R359	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1005	
R360	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1005	
R361	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R362	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R363	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1005	
R364	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1005	
R365	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R366	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R371	2007-007148	R-CHIP;3.6KOHM,5%,1/16W,DA,TP,1005	
R373	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R374	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R377	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R379	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R380	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R388	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R390	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R391	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R392	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R394	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R395	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R396	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R397	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R398	2007-000151	R-CHIP;15Kohm,5%,1/16W,DA,TP,1005	
R451	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R452	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R454	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R455	2007-007132	R-CHIP;15Kohm,1%,1/16W,DA,TP,1005	
R456	2007-007946	R-CHIP;470Kohm,1%,1/16W,DA,TP,1005	
R457	2007-008354	R-CHIP;220KOHM,1%,1/16W,DA,TP,1005	
R501	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R502	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R503	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R504	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R506	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R507	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R509	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R510	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R511	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R512	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R514	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R515	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R518	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R519	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R521	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R522	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R524	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R525	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R526	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R530	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R531	2007-003024	R-CHIP;620KOHM,5%,1/16W,DA,TP,1005	
R533	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R534	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R535	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R536	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R537	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R539	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R540	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R541	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R543	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R544	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R545	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R546	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R547	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R548	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R549	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R550	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R551	2007-007305	R-CHIP;120ohm,1%,1/16W,DA,TP,1005	
R552	2007-007306	R-CHIP;100ohm,1%,1/16W,DA,TP,1005	
R554	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R556	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R557	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R558	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R559	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R561	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R562	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R563	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R564	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R565	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R566	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R567	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R568	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R569	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R570	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R571	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R572	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R573	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R574	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R575	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R576	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R577	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R578	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R579	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R580	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R582	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R584	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R585	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R586	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R587	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R588	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R589	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R590	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R591	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R592	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R593	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R595	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R601	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R602	2007-001311	R-CHIP;270ohm,5%,1/16W,DA,TP,1005	
R603	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R604	2007-001311	R-CHIP;270ohm,5%,1/16W,DA,TP,1005	
R605	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R606	2007-007573	R-CHIP;330Kohm,1%,1/16W,DA,TP,1005	
R607	2007-007573	R-CHIP;330Kohm,1%,1/16W,DA,TP,1005	
R609	2007-007134	R-CHIP;39Kohm,1%,1/16W,DA,TP,1005	
R610	2007-007107	R-CHIP;100Kohm,1%,1/16W,DA,TP,1005	
R611	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R612	2007-007313	R-CHIP;6.8Kohm,1%,1/16W,DA,TP,1005	
R613	2007-000160	R-CHIP;68Kohm,5%,1/16W,DA,TP,1005	
R614	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R615	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R616	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R617	2007-000160	R-CHIP;68Kohm,5%,1/16W,DA,TP,1005	
R618	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R619	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R620	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R622	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
R623	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
R624	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R625	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R626	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R627	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R628	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R629	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R630	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R636	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
R637	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
R643	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
R644	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
R649	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R650	2007-001341	R-CHIP;680Kohm,5%,1/16W,DA,TP,1005	
R652	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R653	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R654	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R656	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R657	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R701	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R702	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R703	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R704	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R705	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R706	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R707	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R708	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R709	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
R710	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
R711	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R712	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R713	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R714	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R715	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R716	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R717	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R718	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R720	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R721	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R722	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R723	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R724	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R725	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R901	2007-008417	R-CHIP;34KOHM,1%,1/16W,DA,TP,1005	
R902	2007-008418	R-CHIP;7.15KOHM,1%,1/16W,DA,TP,1005	
R903	2007-007588	R-CHIP;1.8Kohm,1%,1/16W,DA,TP,1005	
R904	2007-000831	R-CHIP;39Kohm,5%,1/16W,DA,TP,1005	
R905	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R906	2007-007309	R-CHIP;12Kohm,1%,1/16W,DA,TP,1005	
R907	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R908	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R909	2007-008275	R-CHIP;30KOHM,1%,1/16W,DA,TP,1005	
R910	2007-007131	R-CHIP;13Kohm,1%,1/16W,DA,TP,1005	
R911	2007-008275	R-CHIP;30KOHM,1%,1/16W,DA,TP,1005	
R912	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R913	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R914	2007-007309	R-CHIP;12Kohm,1%,1/16W,DA,TP,1005	
R915	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R916	2007-007588	R-CHIP;1.8Kohm,1%,1/16W,DA,TP,1005	
R917	2007-007314	R-CHIP;5.6Kohm,1%,1/16W,DA,TP,1005	
R918	2007-007314	R-CHIP;5.6Kohm,1%,1/16W,DA,TP,1005	
R919	2007-007588	R-CHIP;1.8Kohm,1%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R920	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R921	2007-007310	R-CHIP;8.2Kohm,1%,1/16W,DA,TP,1005	
R922	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R923	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,DA,TP,1005	
R924	2007-007311	R-CHIP;22Kohm,1%,1/16W,DA,TP,1005	
R925	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R926	2007-008269	R-CHIP;51KOHM,1%,1/16W,DA,REEL,1005	
R927	2007-007589	R-CHIP;68Kohm,1%,1/16W,DA,TP,1005	
R928	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R929	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R930	2007-007310	R-CHIP;8.2Kohm,1%,1/16W,DA,TP,1005	
R932	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R933	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R934	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R935	2007-008366	R-CHIP;9.53KOHM,1%,1/16W,DA,TP,1005	
R943	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R944	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R946	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R947	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R948	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R949	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R951	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R952	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R953	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R954	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R955	2007-007132	R-CHIP;15Kohm,1%,1/16W,DA,TP,1005	
R956	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R957	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R958	2007-001333	R-CHIP;18Kohm,5%,1/16W,DA,TP,1005	
R959	2007-000151	R-CHIP;15Kohm,5%,1/16W,DA,TP,1005	
R960	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R961	2007-007138	R-CHIP;27KOHM,1%,1/16W,DA,TP,1005	
R964	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RN503	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN504	2011-001393	R-NETWORK;1KOHM,5%,1/16W,L,CHIP,8P,TP	
RN505	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN506	2011-001393	R-NETWORK;1KOHM,5%,1/16W,L,CHIP,8P,TP	
RN508	2011-001393	R-NETWORK;1KOHM,5%,1/16W,L,CHIP,8P,TP	
RN701	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN702	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN703	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN704	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RN705	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	
RN706	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	
RN707	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	

Loc. No	Part No	Desc & Spec	Remark
RN708	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	
RN709	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	
RN710	2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP	
RN711	2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP	
RN712	2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP	
RN713	2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP	
RN714	2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP	
RN715	2011-001394	R-NETWORK;100KOHM,5%,1/16W,L,CHIP,8P,TP	
RP01	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP02	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP03	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP04	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP05	2007-000863	R-CHIP;4.3OHM,5%,1/10W,DA,TP,2012	
RP06	2007-000863	R-CHIP;4.3OHM,5%,1/10W,DA,TP,2012	
RP07	2007-001038	R-CHIP;56Kohm,1%,1/16W,DA,TP,1608	
RP08	2007-000869	R-CHIP;4.7Kohm,1%,1/16W,DA,TP,1608	
RP09	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP10	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP11	2007-000863	R-CHIP;4.3OHM,5%,1/10W,DA,TP,2012	
RP12	2007-000863	R-CHIP;4.3OHM,5%,1/10W,DA,TP,2012	
RP13	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP14	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP15	2007-001307	R-CHIP;180ohm,5%,1/16W,DA,TP,1005	
RP16	2007-001307	R-CHIP;180ohm,5%,1/16W,DA,TP,1005	
RP17	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
RP18	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
RP19	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP20	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP21	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP22	2007-000139	R-CHIP;220ohm,5%,1/16W,DA,TP,1005	
RP23	2007-007001	R-CHIP;3.9KOHM,5%,1/16W,DA,TP,1005	
RP24	2007-007001	R-CHIP;3.9KOHM,5%,1/16W,DA,TP,1005	
RP25	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP26	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP27	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP28	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
RP29	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP30	2007-000636	R-CHIP;270Kohm,5%,1/16W,DA,TP,1005	
RP31	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP32	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP33	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
RP34	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
RP35	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP36	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
RP37	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
RP39	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP40	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP41	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP42	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP45	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP46	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP47	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP48	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP49	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP50	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
RP51	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP52	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP53	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP54	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP55	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP56	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RP57	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP58	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP59	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP60	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP61	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP62	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP63	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RP64	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP65	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP66	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP67	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP68	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RP70	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP71	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP72	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RP73	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP74	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP75	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
SW502	3404-001034	SWITCH-TACT;12V,50mA,160gf,4x7.4x1.8mm,S	
SW503	3409-001081	SWITCH-DETECTOR;12V DC,0.1A,SPST,30gf,PU	
SW504	3404-001200	SWITCH-TACT;12V DC,50MA,160GF,3.9X2.9X2M	
X302	2801-003703	CRYSTAL-SMD;24.576MHz,50ppm,28-ACI,12pF,	
X501	2801-004124	CRYSTAL-SMD;11.895104MHZ,50PPM,28-ABL,7P	
X502	2801-003856	CRYSTAL-SMD;0.032768MHZ,20PPM,28-ACP,7PF	
XP01	2801-004109	CRYSTAL-SMD;16MHZ,50PPM,28-ABL,10PF,100O	
XP02	2804-001309	OSCILLATOR-CLOCK;54MHZ,20PPM,10TTL & CMO	
		ASSY-AUDIO BOARD	
C701	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	

Loc. No	Part No	Desc & Spec	Remark
C702	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C703	2203-001140	C-CERAMIC,CHIP;68nF,10%,16V,X7R,TP,1608,	
C704	2203-000604	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1608	
C705	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C706	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C707	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C708	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C709	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
C710	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C711	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C712	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C713	2203-000604	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1608	
C714	2203-001140	C-CERAMIC,CHIP;68nF,10%,16V,X7R,TP,1608,	
C715	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	
C716	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C717	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C718	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C719	2203-000922	C-CERAMIC,CHIP;470nF,+80-20%,25V,Y5V,TP,	
C720	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
C721	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C722	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C723	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C724	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C725	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C726	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C727	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
C728	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C729	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C730	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C731	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C732	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C735	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C736	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C737	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C738	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
C739	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C740	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
C741	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C742	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C743	2203-000922	C-CERAMIC,CHIP;470nF,+80-20%,25V,Y5V,TP,	
C746	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
C747	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
C748	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C751	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C752	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
C767	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C768	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C769	2203-000888	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,1608	
C770	2203-000888	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,1608	
C771	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C772	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C773	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C775	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C781	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C782	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C783	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
C784	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C785	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C786	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
C787	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C788	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C789	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C790	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CN701	3711-004964	CONNECTOR-HEADER;BOX,40P,2R,0.5MM,SMD-S,	
IC701	1201-001802	IC-AUDIO AMP;74209,LQFP,64P,-,-,-,PLASTI	
IC702	1002-001261	IC-D/A CONVERTER;AK4550,16BIT,TSSOP,16P,	
IC751	0801-002417	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,49	
IC752	AD09-00122A	IC-MOC-VOICE;ML2201,-,8PIN,2V~5.5V,4.096	
L701	2703-001800	INDUCTOR-SMD;100UH,10%,3.2X2.5X2.2MM	
L704	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L706	2703-001867	INDUCTOR-SMD;1UH,20%,2.5X2X1.8MM	
L707	2703-001867	INDUCTOR-SMD;1UH,20%,2.5X2X1.8MM	
L710	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L751	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
PCB701	AD41-00279A	PCB-AUDIO;D5-PJ,EPOXY,2L,REV:00,0.8T,119	
Q701	0501-002312	TR-SMALL SIGNAL;HN2C01FU,NPN,200mW,UMD6,	
Q702	0501-002312	TR-SMALL SIGNAL;HN2C01FU,NPN,200mW,UMD6,	
Q705	0504-001036	TR-DIGITAL;KRA304,PNP,100MW,47K/47K,SOT-	
Q706	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q707	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
R701	2007-000099	R-CHIP;62Kohm,5%,1/16W,DA,TP,1608	
R702	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R703	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
R704	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R705	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R706	2007-000099	R-CHIP;62Kohm,5%,1/16W,DA,TP,1608	
R707	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R708	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
R709	2007-001179	R-CHIP;8.2Kohm,5%,1/16W,DA,TP,1608	
R710	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	

Loc. No	Part No	Desc & Spec	Remark
R711	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
R712	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R713	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
R715	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608	
R716	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R717	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R718	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
R719	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R720	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R721	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R722	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
R723	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
R724	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608	
R725	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
R727	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
R728	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
R729	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R730	2007-001179	R-CHIP;8.2Kohm,5%,1/16W,DA,TP,1608	
R731	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
R732	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
R734	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
R735	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608	
R736	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608	
R739	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
R740	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
R741	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R742	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R751	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
R752	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
R753	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
R754	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R755	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R770	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
R771	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
R781	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R782	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R783	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
R784	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
		ASSY-CCD BOARD	
CC01	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CC02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CC03	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CC04	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
CC05	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
CC06	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CNC01	3708-000382	CONNECTOR-FPC/FFC/PIC;16P,0.5mm,ANGLE,SN	
DC01	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
QC01	0505-000180	FET-SILICON;2SK1070,N,-,50mA,-,150mW,SOT	
RC01	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	
RC02	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
RC03	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
		ASSY-CVF BOARD	
CNV01	3708-001649	CONNECTOR-FPC/FFC/PIC;16P,0.5MM,SMD-A-ZI	
CNV02	3708-000382	CONNECTOR-FPC/FFC/PIC;16P,0.5mm,ANGLE,SN	
CNV03	3708-001436	CONNECTOR-FPC/FFC/PIC;4P,1mm,SMD-S,SN	
CV01	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CV02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV03	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV04	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CV05	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CV06	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CV07	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CV08	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CV09	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV11	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CV12	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CV16	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CV18	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CV19	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	
CV20	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
CV21	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CV22	2203-000552	C-CERAMIC,CHIP;0.02nF,5%,50V,NP0,TP,1608	
CV23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV24	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CV25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV26	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV27	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CV28	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CV29	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
DV01	0405-000123	DIODE-VARACTOR;1T369,34V,10nA,DSM,TP	
ICV01	1003-001283	IC-LCD DRIVER;CXA3503R,LQFP,72P,-,SINGLE	
ICV02	1103-001133	IC-EEPROM;24C020,256x8BIT,SOP,8P,150MIL,	
LV01	2703-000363	INDUCTOR-SMD;10uH,5%,2.5x2x1.8mm	
LV02	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LV03	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LV04	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	
LV05	2703-001883	INDUCTOR-SMD;22uH,10%,2.5x2x1.8mm	

Loc. No	Part No	Desc & Spec	Remark
RV03	2007-000103	R-CHIP;120Kohm,5%,1/16W,DA,TP,1608	
RV04	2007-000067	R-CHIP;15Kohm,1%,1/16W,DA,TP,1608	
RV05	2007-000772	R-CHIP;33Kohm,1%,1/16W,DA,TP,1608	
RV07	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV08	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV09	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
RV10	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RV11	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RV12	2007-001670	R-CHIP;68OHM,1%,1/10W,DA,TP,2012	
RV13	2007-000060	R-CHIP;100Kohm,1%,1/16W,DA,TP,1608	
RV14	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV16	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV17	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RV18	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RV19	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RV20	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
RV21	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RV22	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608	
RV23	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
		ASSY-M/STICK BOARD	
CM01	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM02	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM03	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM04	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM05	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM06	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM07	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM08	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM09	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM10	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM15	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM17	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM18	2203-000941	C-CERAMIC,CHIP;470pF,10%,50V,X7R,TP,1005	
CM19	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM20	2203-000941	C-CERAMIC,CHIP;470pF,10%,50V,X7R,TP,1005	
CM21	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM22	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM23	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM24	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM25	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM30	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM31	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM32	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM33	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM42	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM43	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM50	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM51	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM61	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM62	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM63	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM64	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM65	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM66	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM67	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM68	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM69	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM71	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM72	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM73	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM74	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM75	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM76	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM77	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM78	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM79	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM80	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM81	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM82	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM83	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM84	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM85	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM86	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CM95	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
CM96	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CNM01	3708-001650	CONNECTOR-FPC/FFC/PIC;39P,0.3MM,SMD-A,SN	
CNM02	3709-001214	CONNECTOR-CARD EDGE;10P,1.5MM,SMD-A,AUF	
ICM01	AD13-00016A	IC ASIC;-,SH7197,208PIN,-0.3 TO 4.2V,-	
ICM02	1006-001221	IC-BUS TRANSCEIVER;PDIUSBP11A,TSSOP,14P,	
ICM03	0801-002349	IC-CMOS LOGIC;7S66,BILATERAL SWITCH,SOP,	
ICM61	AD13-00017A	IC ASIC;S4H8144F,-,128P,3.3V,-12TO75°...	
ICM71	1105-001423	IC-DRAM;K4S643232E-SE/N70,4X512KX32BIT	
ICM91	1107-001365	IC-FLASH MEMORY;K8D1X16UTA,16MBIT,TBGA,4	
LM01	2703-001867	INDUCTOR-SMD;1UH,20%,2.5X2X1.8MM	
LM02	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LM03	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LM61	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LM71	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LM91	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	

Loc. No	Part No	Desc & Spec	Remark
RM01	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM02	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM03	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM04	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM05	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM06	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM07	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM08	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM09	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM10	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM11	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM12	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM13	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM14	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM15	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM16	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM18	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM19	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM20	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM21	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM22	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM23	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM24	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM25	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM26	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM27	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM28	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RM29	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RM30	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM31	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM32	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM33	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RM34	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RM35	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RM40	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM41	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM42	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM43	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM44	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM45	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM46	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM47	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RM50	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM51	2007-000659	R-CHIP;27ohm,5%,1/16W,DA,TP,1608	
RM52	2007-000659	R-CHIP;27ohm,5%,1/16W,DA,TP,1608	
RM53	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1005	
RM60	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RM61	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM62	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM63	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RM66	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RM67	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RM68	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM69	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM70	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM91	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM92	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM93	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM94	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RM95	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
XM01	2804-001522	OSCILLATOR-CLOCK;33.3333MHZ,50PPM,-,TP,3	
XM02	2804-001523	OSCILLATOR-CLOCK;48MHZ,50PPM,-,TP,3.3V,4	
		ASSY-LCD BOARD	
CL101	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
CL102	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL103	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL104	2301-001108	C-FILM,CHIP;22nF,5%,50V,TP,3.2x2.5x1.4,3	
CL105	2203-005040	C-CERAMIC,CHIP;0.012nF,5%,3kV,NP0,TP,452	
CL106	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL107	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL108	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL109	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL110	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL111	2203-001656	C-CERAMIC,CHIP;0.47nF,5%,50V,NP0,TP,1608	
CL112	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL113	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL114	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL115	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL116	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL118	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL119	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CL120	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL122	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CL123	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL124	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CL125	2404-001039	C-TA,CHIP;47uF,20%,6.3V,GP,TP,3528,-	
CL126	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL127	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL128	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	

Loc. No	Part No	Desc & Spec	Remark
CL129	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL130	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL131	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CL132	2203-001628	C-CERAMIC,CHIP;0.03nF,5%,50V,NP0,TP,1608	
CL133	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CL134	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL135	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	
CL136	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CL137	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CL138	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CL139	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CNL101	3708-001651	CONNECTOR-FPC/FFC/PIC;20P,0.5MM,SMD-A,-	
CNL301	3708-001652	CONNECTOR-FPC/FFC/PIC;24P,0.5MM,SMD-A,-	
DL101	0405-000123	DIODE-VARACTOR;1T369,34V,10nA,DSM,TP	
DL102	0403-001422	DIODE-ZENER;KDZ4.3V,4.0-4.5V,150MW,SOD-3	
DL103	0403-001421	DIODE-ZENER;KDZ2.7V,2.5-2.9V,150MW,SOD-3	
ICL101	1003-001396	IC-LCD DRIVER;CXA3268AR,LQFP,72P,393MIL,	
ICL202	1103-001133	IC-EEPROM;24C020,256x8BIT,SOP,8P,150MIL,	
LED01	0601-001097	LED;CHIP,GRN,1.6x1.4mm,560nm	
LL101	2703-000187	INDUCTOR-SMD;3.3uH,5%,2x2.5x1.8mm	
LL102	2703-000407	INDUCTOR-SMD;330uH,10%,3.2x2.5x2.2mm	
LL103	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL104	2703-002271	INDUCTOR-SMD;100UH,-,5.5X5.5X2MM	
LL105	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
LL106	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
QL101	0504-001037	TR-DIGITAL;KRC401,NPN,100MW,4.7K/4.7K,SO	
QL102	0502-001221	TR-POWER;CPH3209,NPN,900MW,CPH3,TP,200-	
QL103	0502-001221	TR-POWER;CPH3209,NPN,900MW,CPH3,TP,200-	
QL104	0501-002311	TR-SMALL SIGNAL;HN2A01FU,PNP,200mW,UMD6,	
QL105	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QL106	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
QL107	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
QL108	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
RL101	2007-000516	R-CHIP;2.7Kohm,1%,1/16W,DA,TP,1608	
RL102	2007-000516	R-CHIP;2.7Kohm,1%,1/16W,DA,TP,1608	
RL103	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
RL104	2007-000116	R-CHIP;120ohm,5%,1/16W,DA,TP,1608	
RL105	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL106	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL107	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL108	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL109	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
RL113	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL114	2007-000067	R-CHIP;15Kohm,1%,1/16W,DA,TP,1608	
RL115	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL116	2007-000828	R-CHIP;39Kohm,1%,1/16W,DA,TP,1608	
RL117	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL118	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL119	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL120	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL121	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL122	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
RL123	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL124	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL128	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL131	2007-000772	R-CHIP;33Kohm,1%,1/16W,DA,TP,1608	
RL132	2007-000060	R-CHIP;100Kohm,1%,1/16W,DA,TP,1608	
RL135	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
RL136	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL137	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608	
RL138	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL140	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL141	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
TL103	2601-001090	TRANS-SMD,PULSE;100MH,760,-,10.1X10.1X2.	
		ASSY-JACK BOARD	
CNE01	3708-001671	CONNECTOR-FPC/FFC/PIC;23P,0.3MM,SMD-A,SN	
JNE01	3722-001202	JACK-PHONE;7P,3.6PI,AG,YEL,NO	
JNE02	AD97-04290A	ASSY-S-JACK;4P,D5-PJ,DUSE-0126	
JNE03	3722-001435	JACK-PHONE;4P,3.6PI,AG,RED,-	
JNE04	3722-001741	JACK-USB;5P,-,AU30U,BLK,-	
JNE05	AD37-00001A	JACK;-,IEEE1394 HEADER 4P,1,-,-	
		ASSY-TERMINAL DC BOARD	
TB901	AD97-03868A	ASSY-TERMINAL;ASSY,D5-PJ,-	
TJ901	AD97-04365A	ASSY-DC JACK;3P,D5-PJ,DDSE-0138	
TJ902	3722-001737	JACK-PHONE;4P,3.6PI,AG,GRN,-	
TR901	2007-007948	R-CHIP;0.1ohm,1%,0.75W,DA,TP,5025	
TS901	3403-000126	SWITCH-PUSH;12V,100mA,-,-	
TS902	3406-001069	SWITCH-ROTARY;10V DC,1mA,SPST,-	
		ADAPTOR-AC POWER BOARD	
C10	2203-000455	C-CERAMIC,CHIP;1nF,5%,50V,NP0,TP,2012	
C11	2301-001092	C-FILM,MPEF;100nF,20%,275V,BK,18x6x12,15	
C12	2401-003302	C-AL;47uF,20%,400V,GP,TP,18X31.5,7.	
C13	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C14	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C15	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C16	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C30	2201-000828	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,15x	
C50	2401-000133	C-AL;1000uF,20%,16V,GP,TP,10x20,5	

Loc. No	Part No	Desc & Spec	Remark
C51	2401-000037	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
C55	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
C57	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C58	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
C59	2203-000938	C-CERAMIC,CHIP;0.47nF,5%,50V,NP0,TP,2012	
C61	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
C62	2401-000438	C-AL;10uF,20%,25V,GP,-,5x11,2mm	
C63	2203-000455	C-CERAMIC,CHIP;1nF,5%,50V,NP0,TP,2012	
CON1	3721-001034	PLUG-AC POWER;2P,-,-,NI	
CON2	3711-000900	CONNECTOR-HEADER;BOX,3P,1R,2.5mm,STRAIGH	
D10	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D11	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D12	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D13	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D14	0402-001041	DIODE-RECTIFIER;ERA22-10,1000V,500mA,MSR	
D15	0402-001041	DIODE-RECTIFIER;ERA22-10,1000V,500mA,MSR	
D50	0402-001062	DIODE-RECTIFIER;SF10SC9,90V,10A,FTO-220,	
D52	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-	
D53	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
D54	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
D55	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
F10	3601-000207	FUSE-CARTRIDGE;250V,1A,TIME-LAG,GLASS,5.	
IC10	1203-002180	IC-PWM CONTROLLER;5M0265,TO220F-4L,4P,39	
IC50	AC14-12006D	IC;KA431Z,TO-92,TAPING	
IC51	AC14-12001K	IC;KA324,-,-	
J10	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J11	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J50	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
J51	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J52	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J53	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
J55	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J56	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J57	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J61	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
L50	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
LF10	AC27-32001F	COIL-LINE FILTER;BSF-2123,20MH,2OHM,ST,-	
PC10	0604-000119	PHOTO-COUPLER;TR,200-400%,200mW,DIL-4,ST	
Q52	0501-000457	TR-SMALL SIGNAL;MMBT2222A,NPN,350MW,SOT-	
R00	2007-000477	R-CHIP;1MOHM,5%,1/10W,DA,TP,2012	
R10	2007-000481	R-CHIP;1MOHM,5%,1/8W,DA,TP,3216	
R11	2007-000481	R-CHIP;1MOHM,5%,1/8W,DA,TP,3216	
R13	2003-000771	R-METAL OXIDE(S);68Kohm,5%,2W,AA,TP,4x12	
R14	2007-000598	R-CHIP;22OHM,5%,1/8W,DA,TP,3216	
R15	2007-000768	R-CHIP;330OHM,5%,1/8W,DA,TP,3216	

Loc. No	Part No	Desc & Spec	Remark
R16	2007-000768	R-CHIP;330OHM,5%,1/8W,DA,TP,3216	
R17	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R18	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R19	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R20	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R21	2001-000374	R-CARBON;15OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R30	2001-000739	R-CARBON;4.7MOHM,5%,1/8W,AA,TP,1.8X3.2M	
R30	2201-001005	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,TP,11x	
R30A	2201-001005	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,TP,11x	
R50	2007-000472	R-CHIP;1KOHM,5%,1/8W,DA,TP,3216	
R51	2007-000472	R-CHIP;1KOHM,5%,1/8W,DA,TP,3216	
R53	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R54	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R55	2007-000312	R-CHIP;10OHM,5%,1/8W,DA,TP,3216	
R57	2007-000938	R-CHIP;47KOHM,1%,1/10W,DA,TP,2012	
R58	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R59	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R60	2007-000771	R-CHIP;33KOHM,1%,1/10W,DA,TP,2012	
R61	2007-000395	R-CHIP;150KOHM,5%,1/10W,DA,TP,2012	
R62	2007-001039	R-CHIP;56KOHM,5%,1/10W,DA,TP,2012	
R63	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R64	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R65	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R66	2007-000406	R-CHIP;15KOHM,1%,1/10W,DA,TP,2012	
R68	2007-000572	R-CHIP;220OHM,5%,1/10W,DA,TP,2012	
R70	2007-000546	R-CHIP;20KOHM,5%,1/10W,DA,TP,2012	
R71	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R72	2007-000582	R-CHIP;22KOHM,1%,1/10W,DA,TP,2012	
R74	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R76	2005-000102	R-WIRE WOUND;0.1ohm,1%,1W,AA,TP,4.5x11mm	
R77	2007-000068	R-CHIP;470KOHM,5%,1/10W,DA,TP,2012	
R79	2007-001067	R-CHIP;6.8KOHM,1%,1/10W,DA,TP,2012	
R80	2007-000477	R-CHIP;1MOHM,5%,1/10W,DA,TP,2012	
T10	AD26-00026A	TRANS POWER;AA-E6,AA-E6,1.4mH,6P,100~260	
VR50	2101-001049	VR-ROTARY;500ohm,-,-,-	
		REMOCON BOARD	
CT02	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
CT03	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
CT04	2203-000199	C-CERAMIC,CHIP;100nF,+80-20%,50V,Z5U,TP,	
ICT01	AD09-00005A	IC-MCU;KS51850-H9D,-,REEL,-,-,SOP,-	
LDT01	0601-000519	LED-IR;ROUND,5mm,170mW,4V,940nm,-	
RT01	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
XT01	2802-000148	RESONATOR-CERAMIC;455KHz,0.4%,BK,7.0x3.5	

7. PCB Diagrams

7-1 Audio PCB - 7-2

7-2 Main PCB - 7-3

7-3 EVF PCB - 7-4

7-4 CVF PCB - 7-5

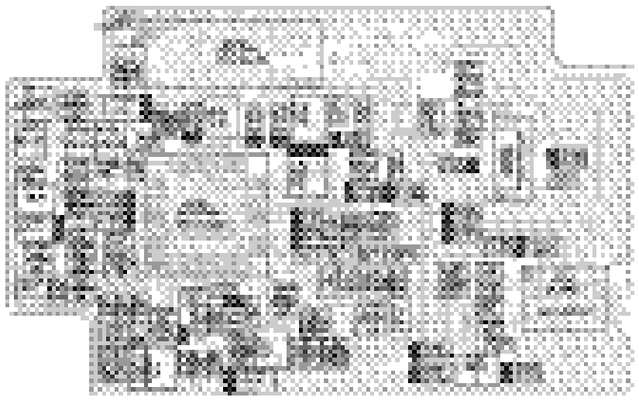
7-5 LCD PCB - 7-6

7-6 CCD PCB - 7-7

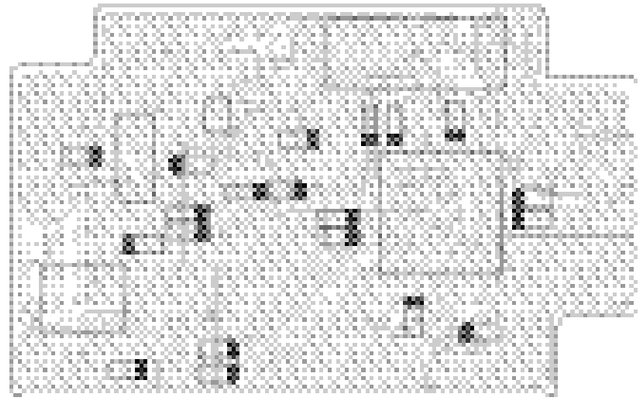
7-7 EIS PCB - 7-8

7-8 DSC PCB - 7-9

7-1 Audio PCB

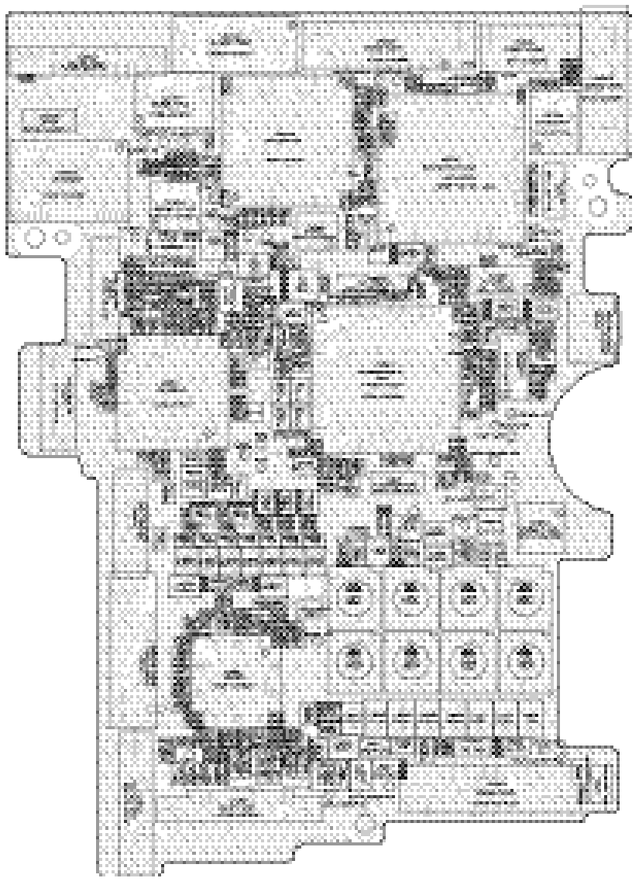


(Component Side)

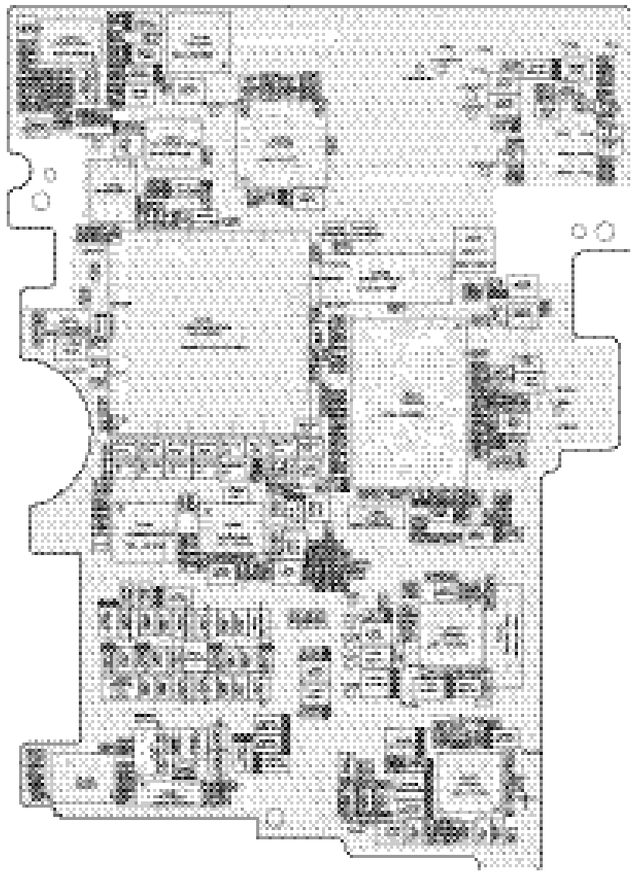


(Conductor Side)

7-2 Main PCB

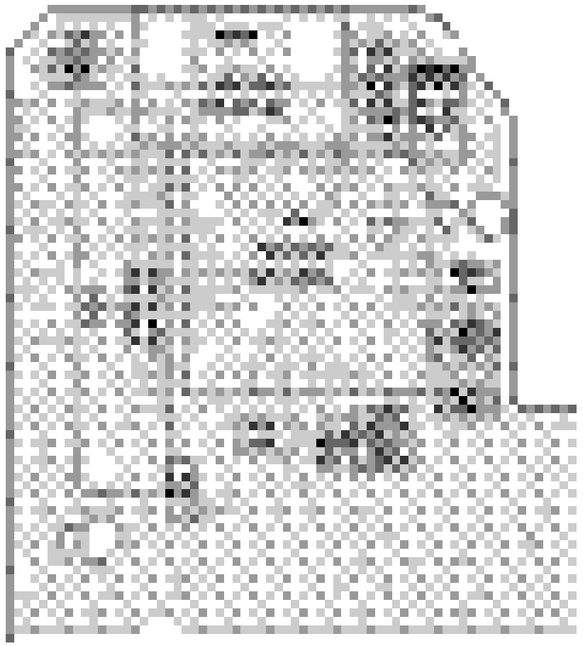


(Component Side)

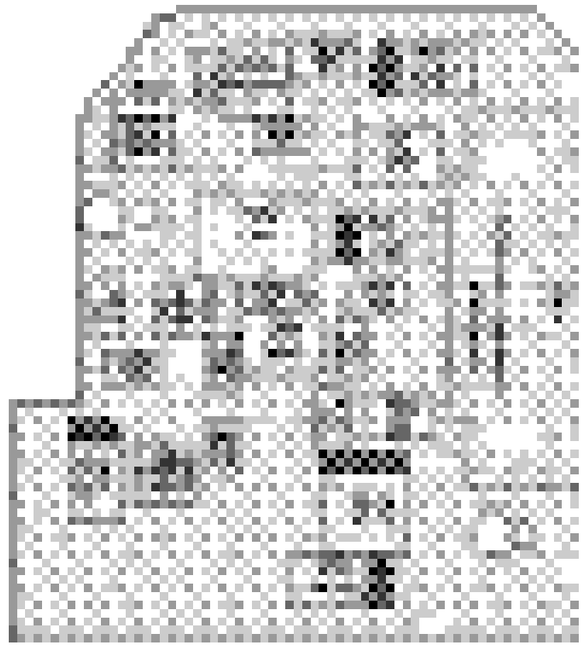


(Conductor Side)

7-3 EVF PCB

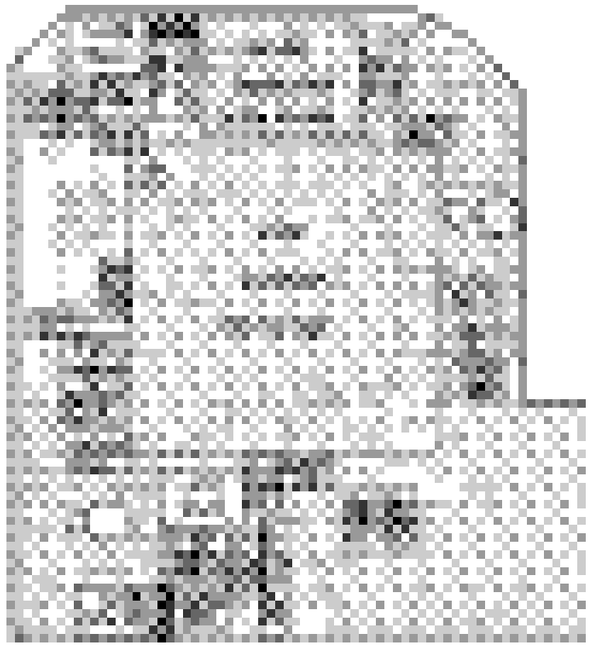


(Component Side)

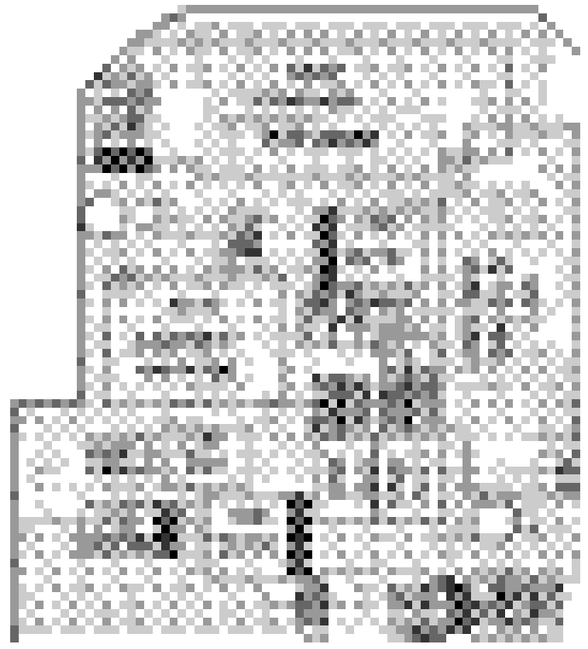


(Conductor Side)

7-4 CVF PCB



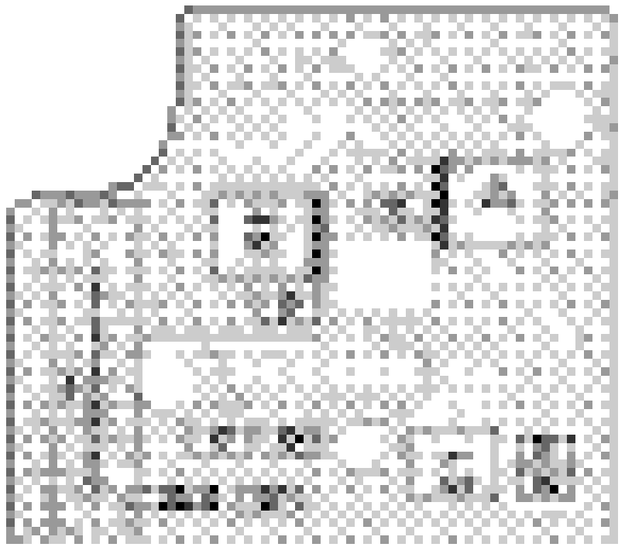
(Component Side)



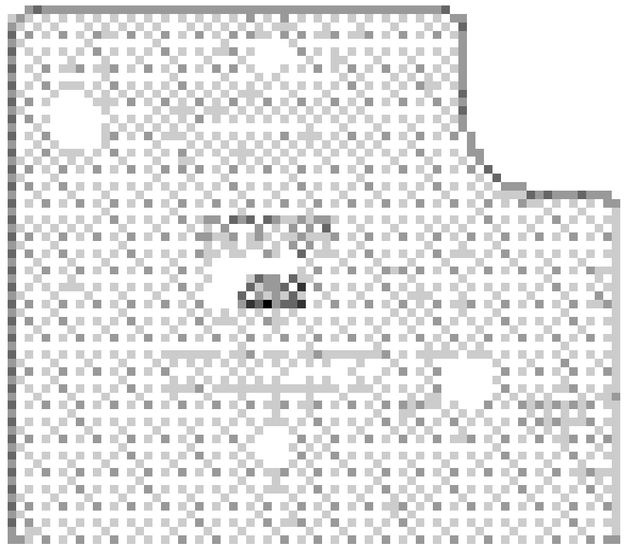
(Conductor Side)

7-5 LCD PCB

7-6 CCD PCB

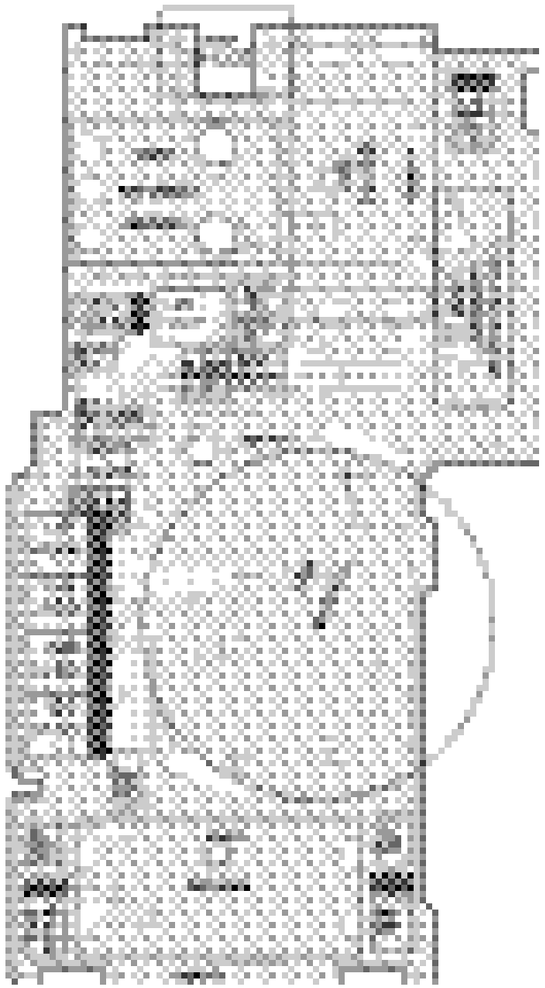


(Component Side)

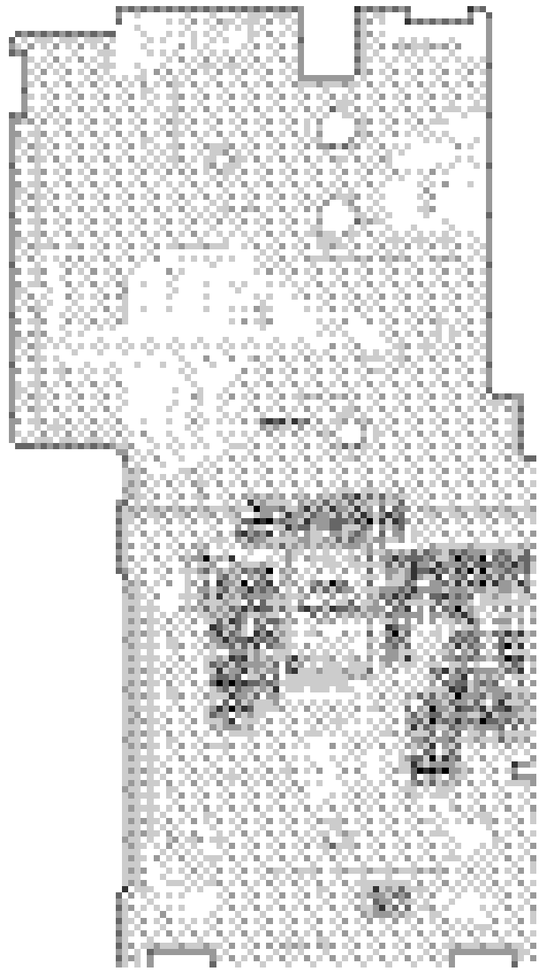


(Conductor Side)

7-7 EIS PCB

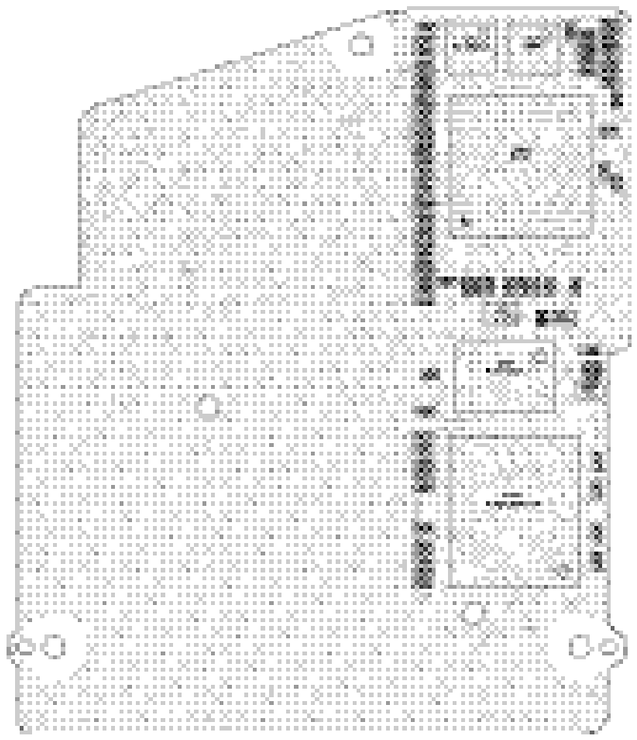


(Component Side)



(Conductor Side)

7-8 DSC PCB



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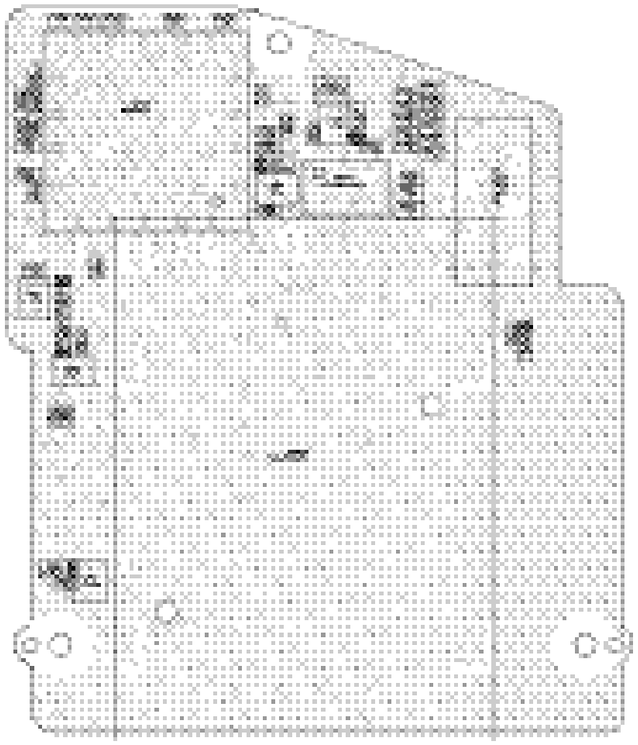
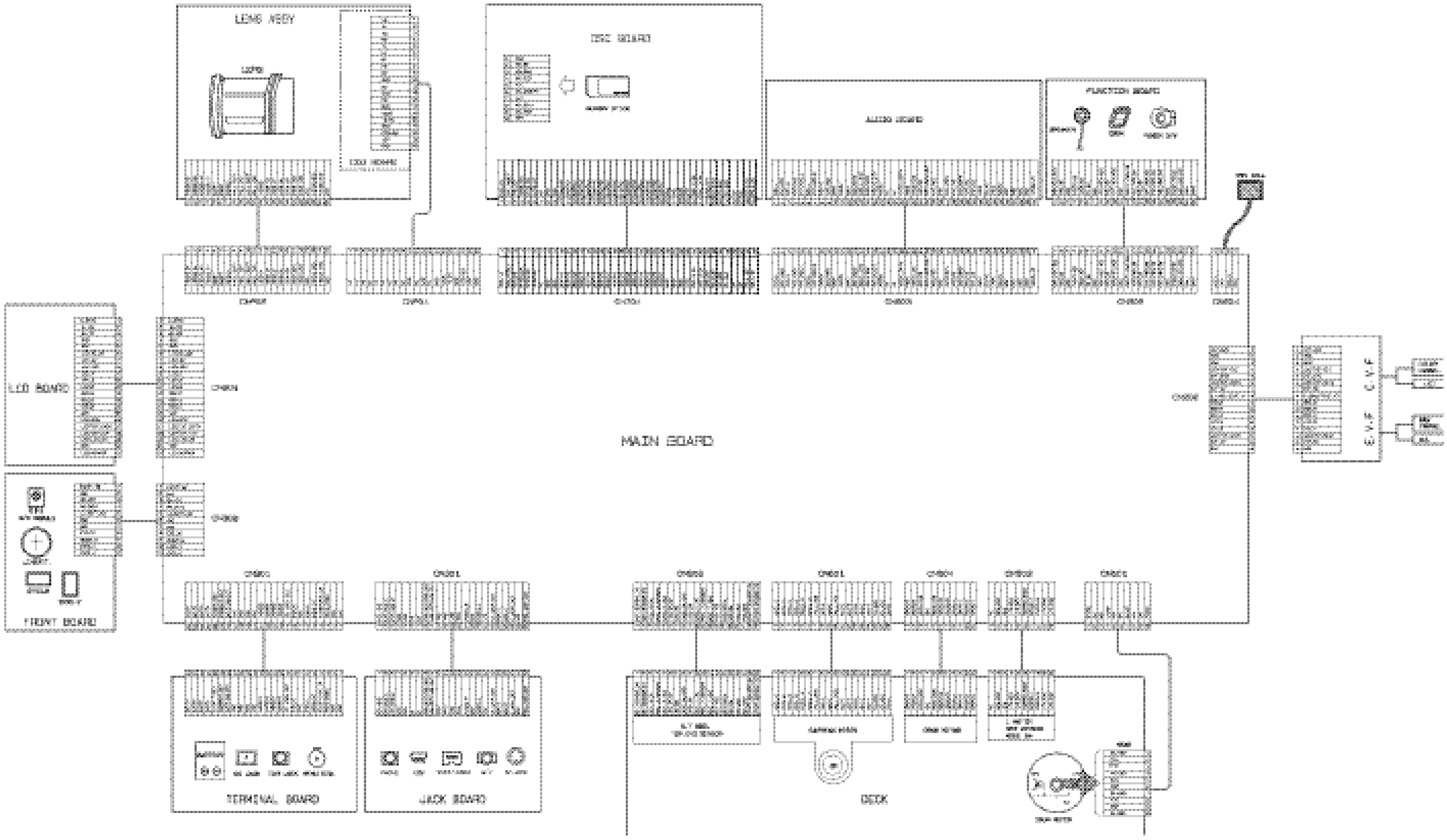


(Conductor Side)

MEMO

8. Wiring Diagram



MEMO

9. Schematic Diagrams

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9-14 LCD - 9-15

9-15 CCD - 9-16

9-16 EIS - 9-17

9-17 CVF - 9-18

Note

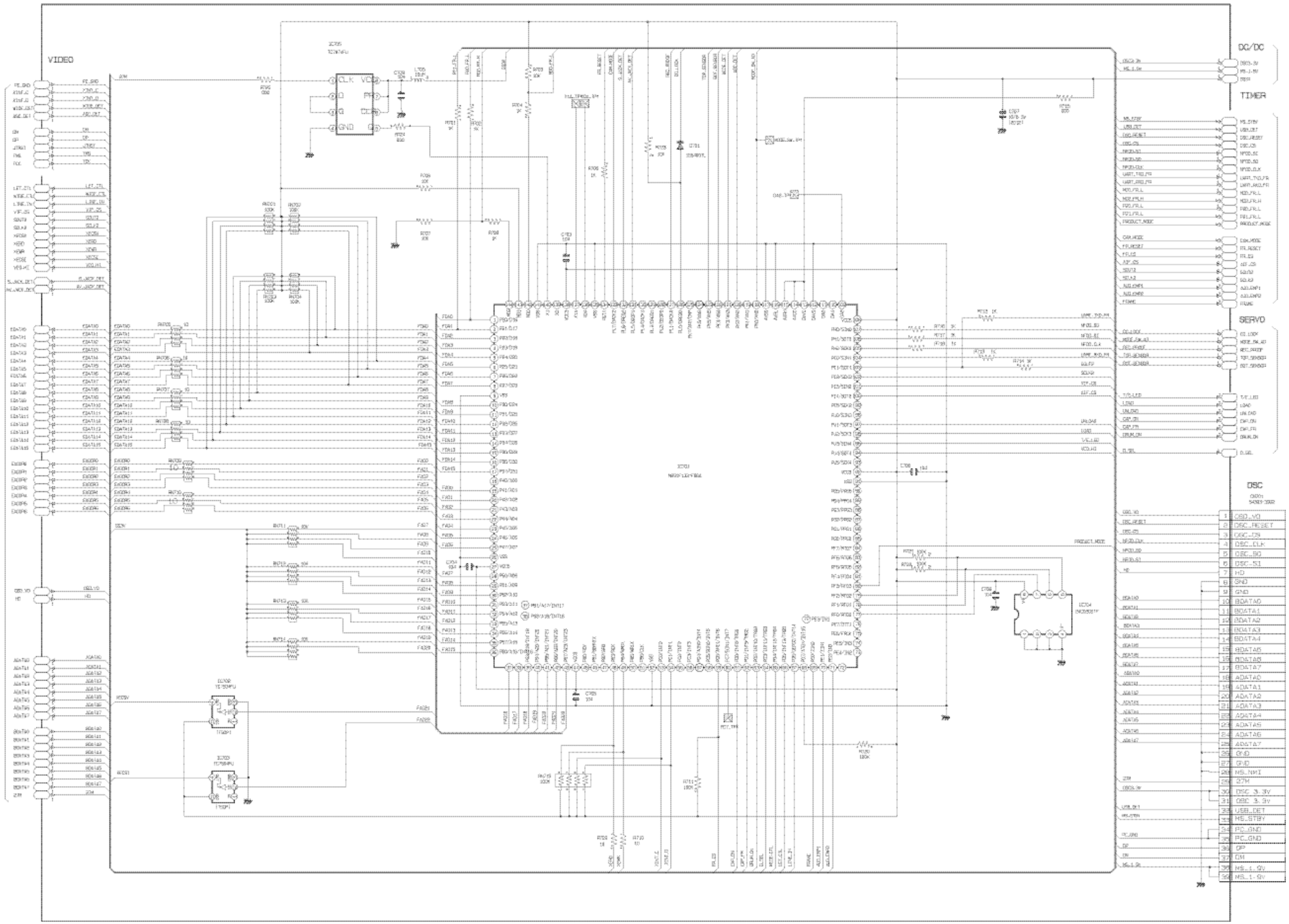
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.
- Circled numbers refer to waveforms.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the “electrostatically sensitive (ES) devices” section of this service manual.

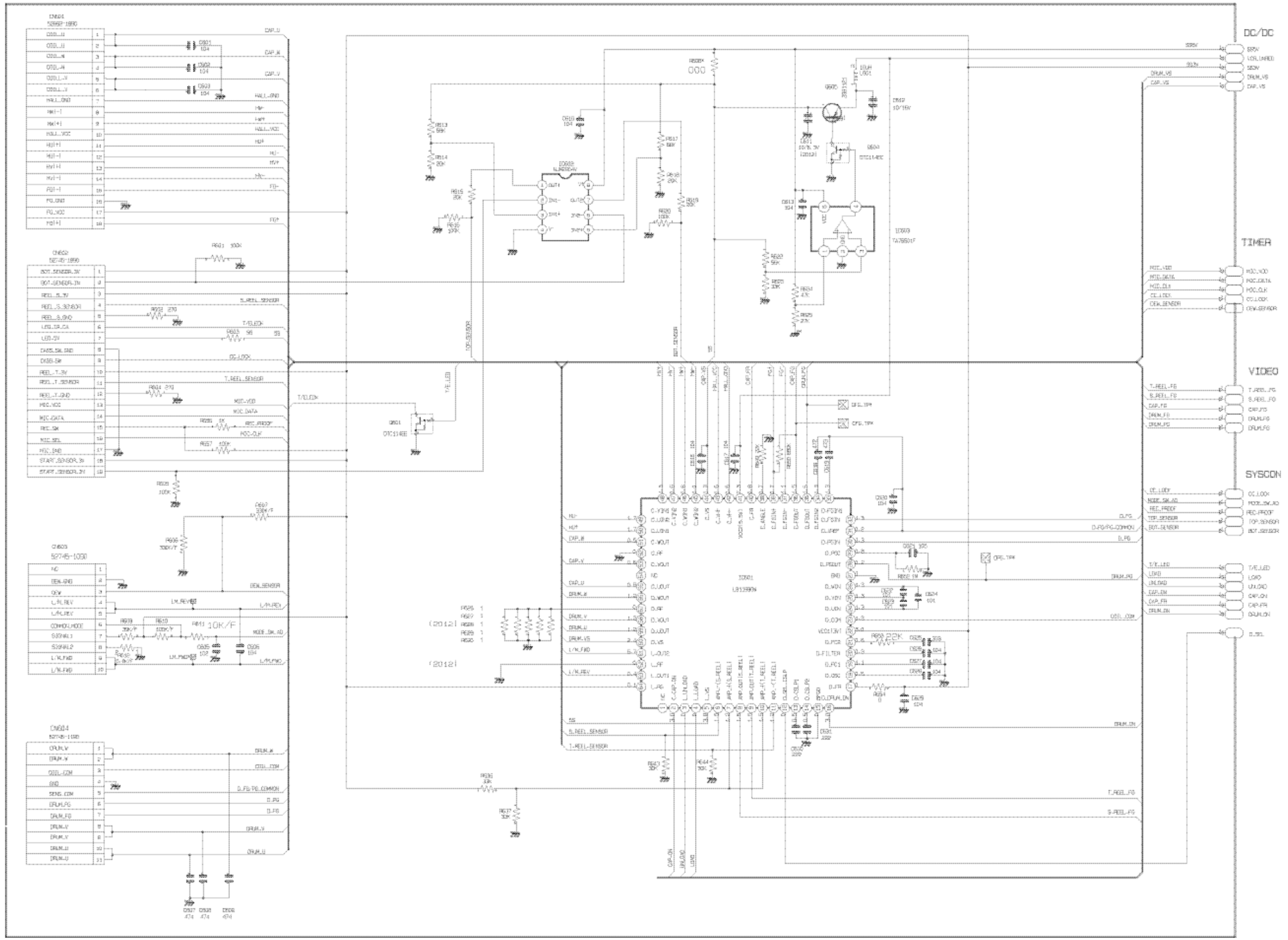
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

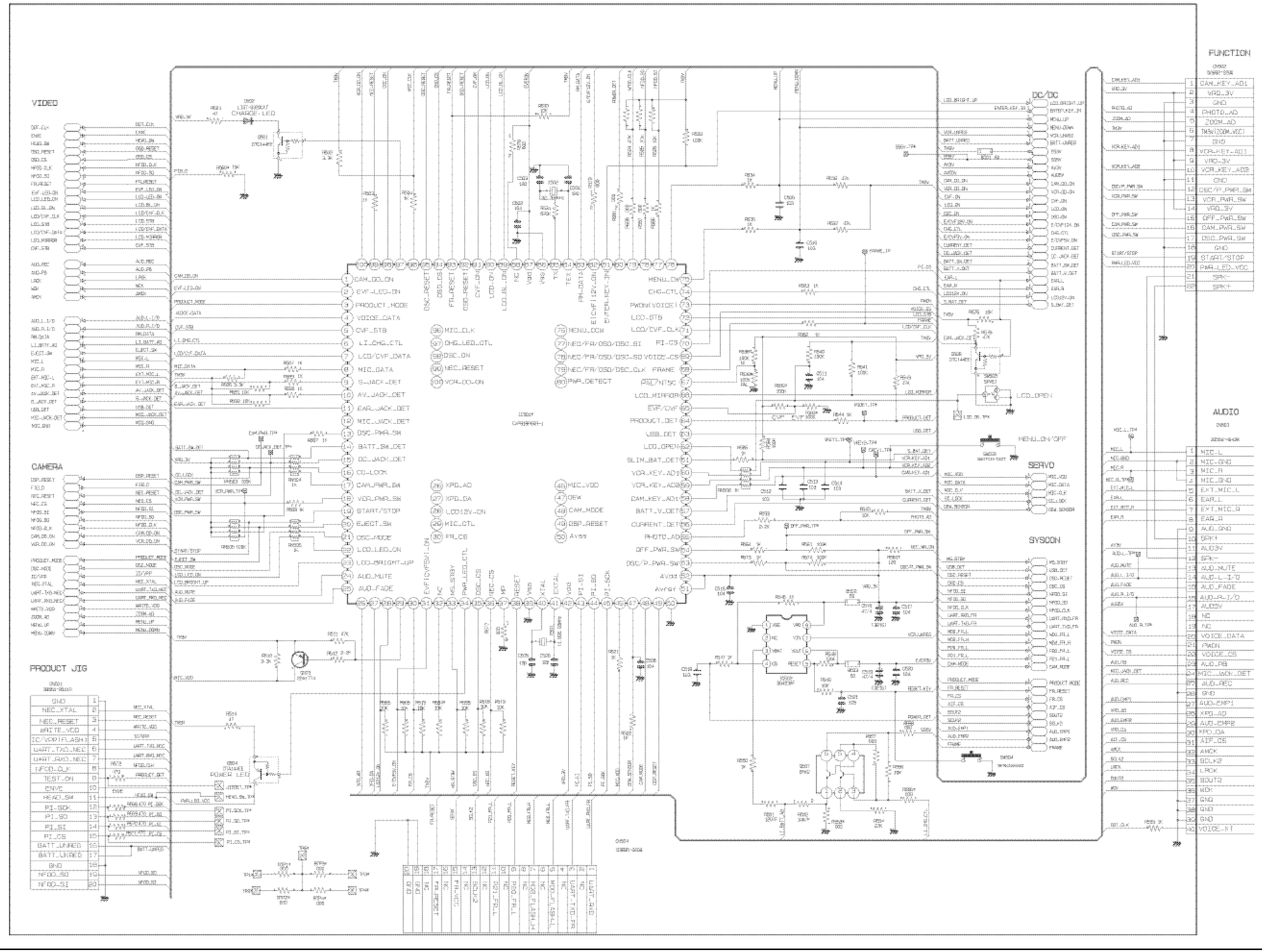
9-1 System Control



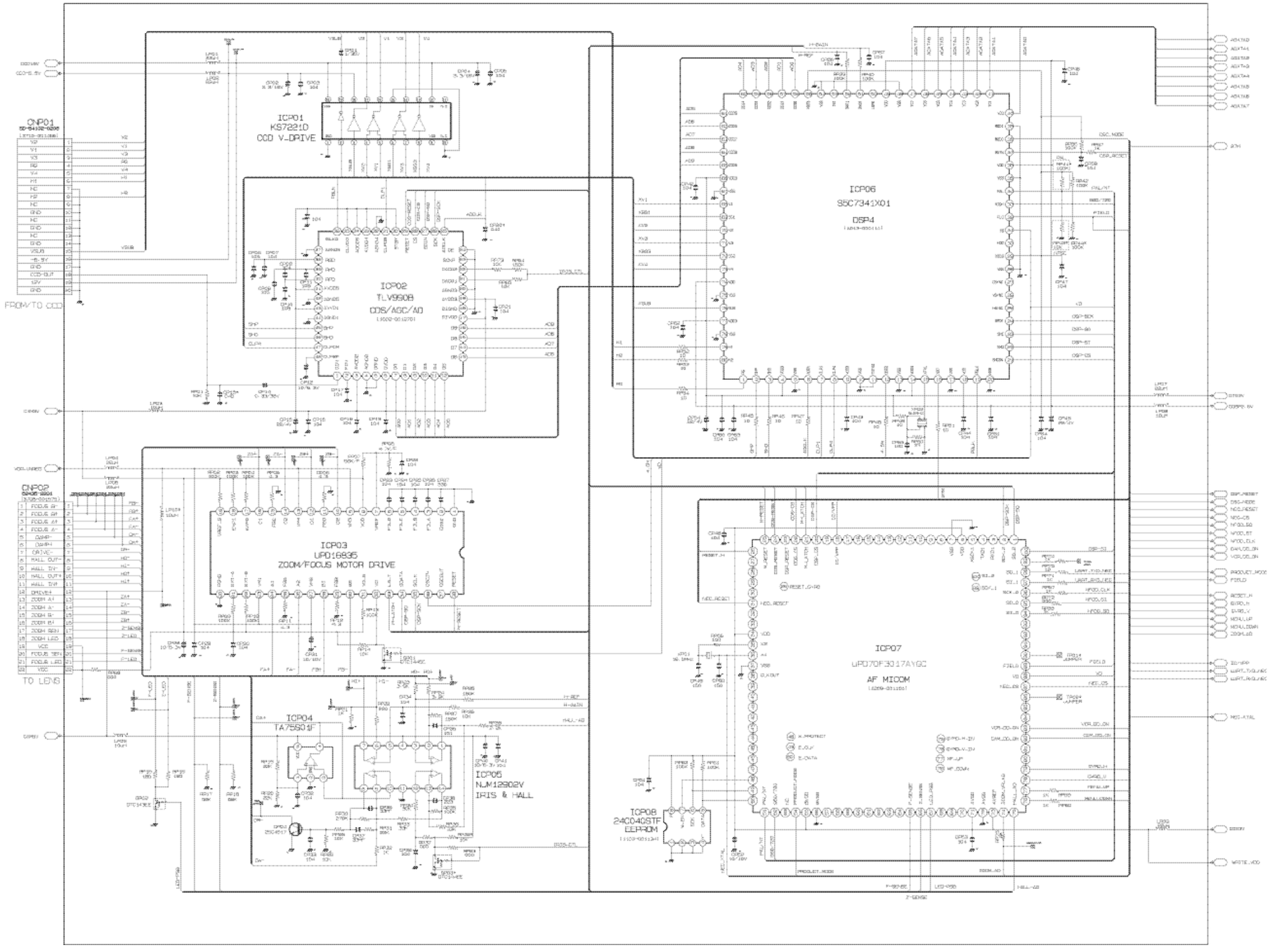
9-2 Servo



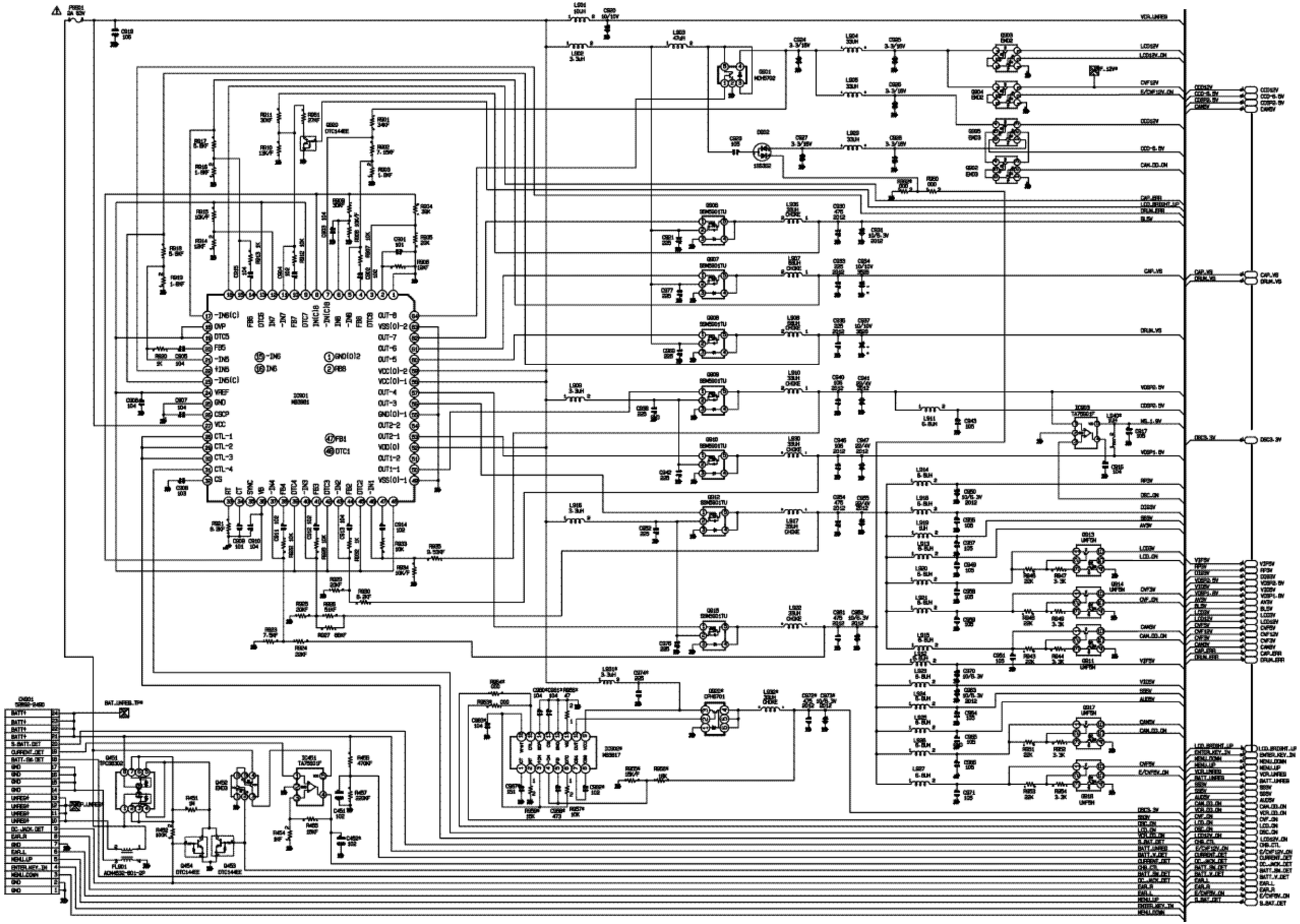
9-3 Timer


VIDEO
CAMERA
PRODUCT JIG
DC/DC
SERVO
SYSCON
FUNCTION
AUDIO
CHG_LED
POWER_LED
LCD_OPEN
MENU_DN/OFF

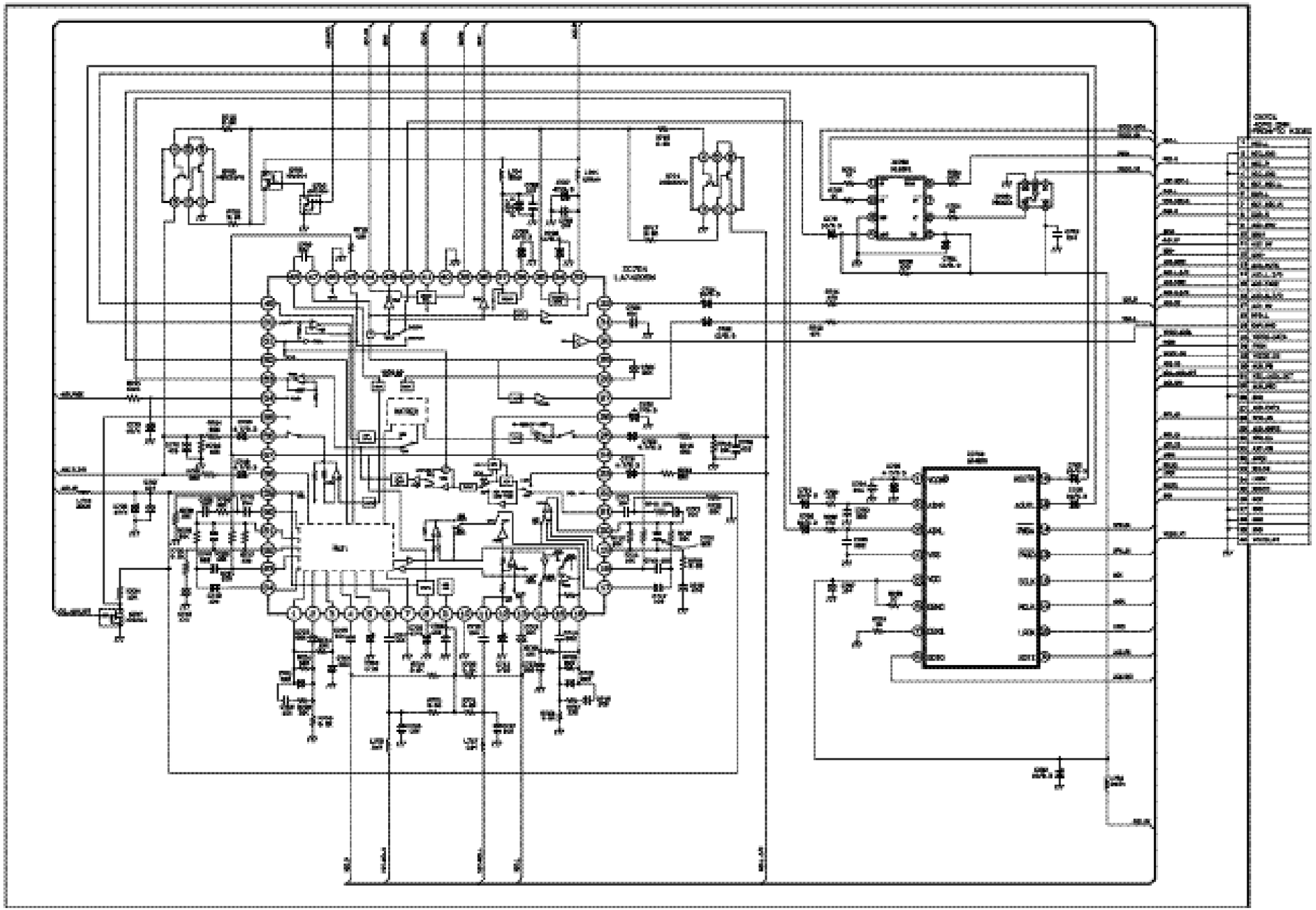
9-4 Camera


CNP01
FROM/TO CCD
ICP01
KS7221D
CCD V_DRIVE
ICP02
TLV950B
CDS/AGC/AD
ICP03
UPD16836
ZOOM/FOCUS MOTOR DRIVE
CNP02
TO LENS
ICP04
TA75S04F
ICP05
NJM12902V
IRIS & HALL
ICP06
S5C7341X01
DSP4
ICP07
UPD70F3017AYGC
AF MICOM
ICP08
24C04BSTF
EEPROM

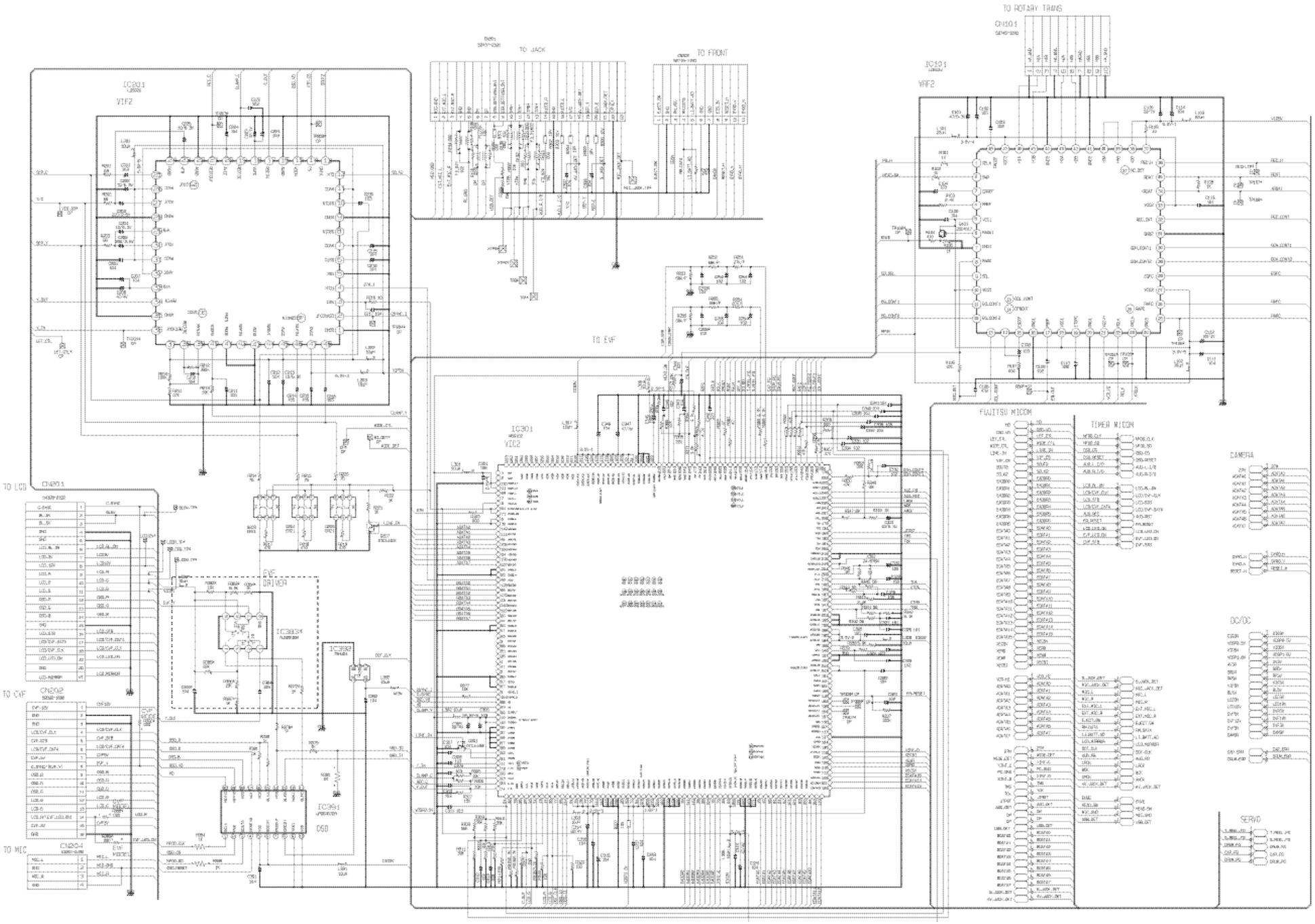
9-5 DC/DC Converter



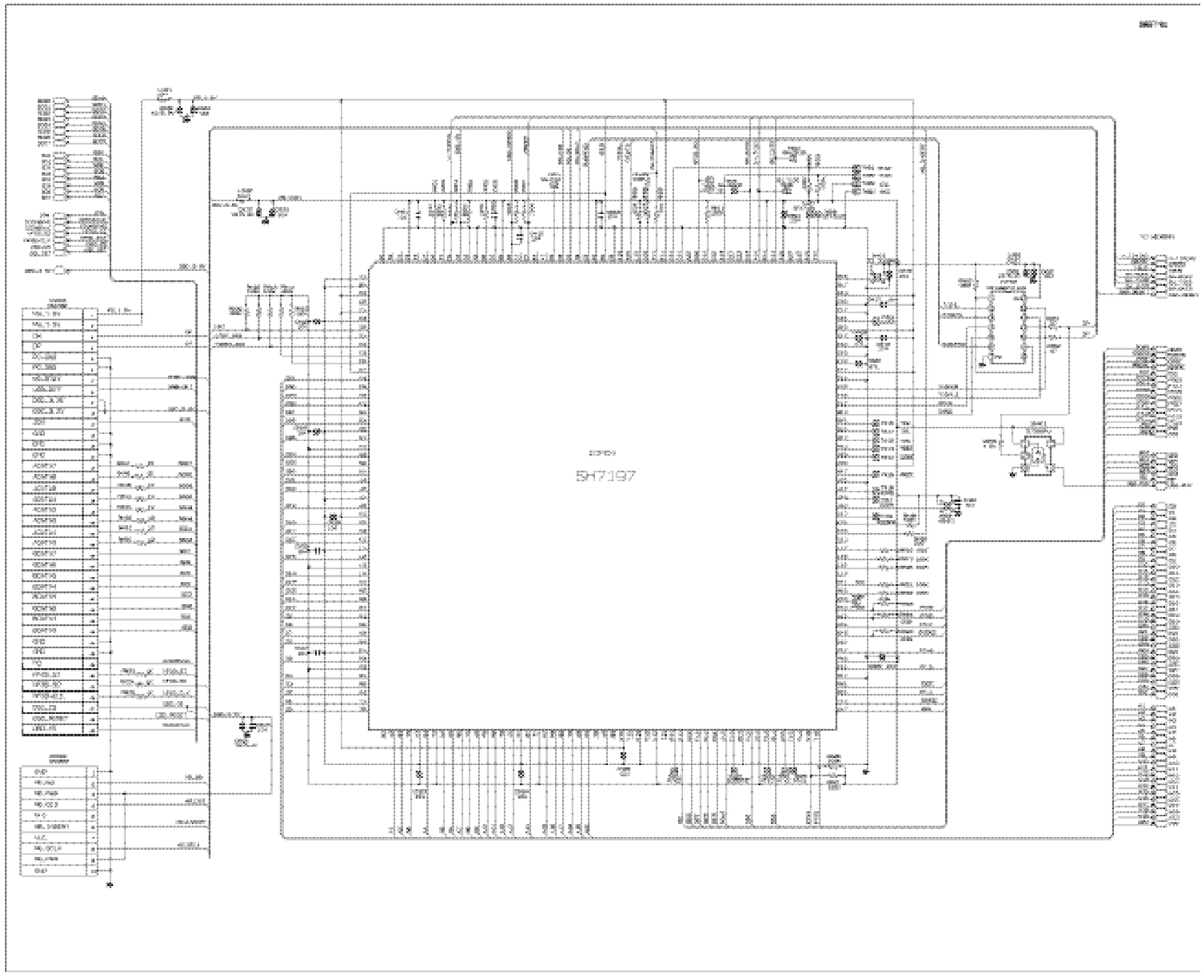
9-6 Audio



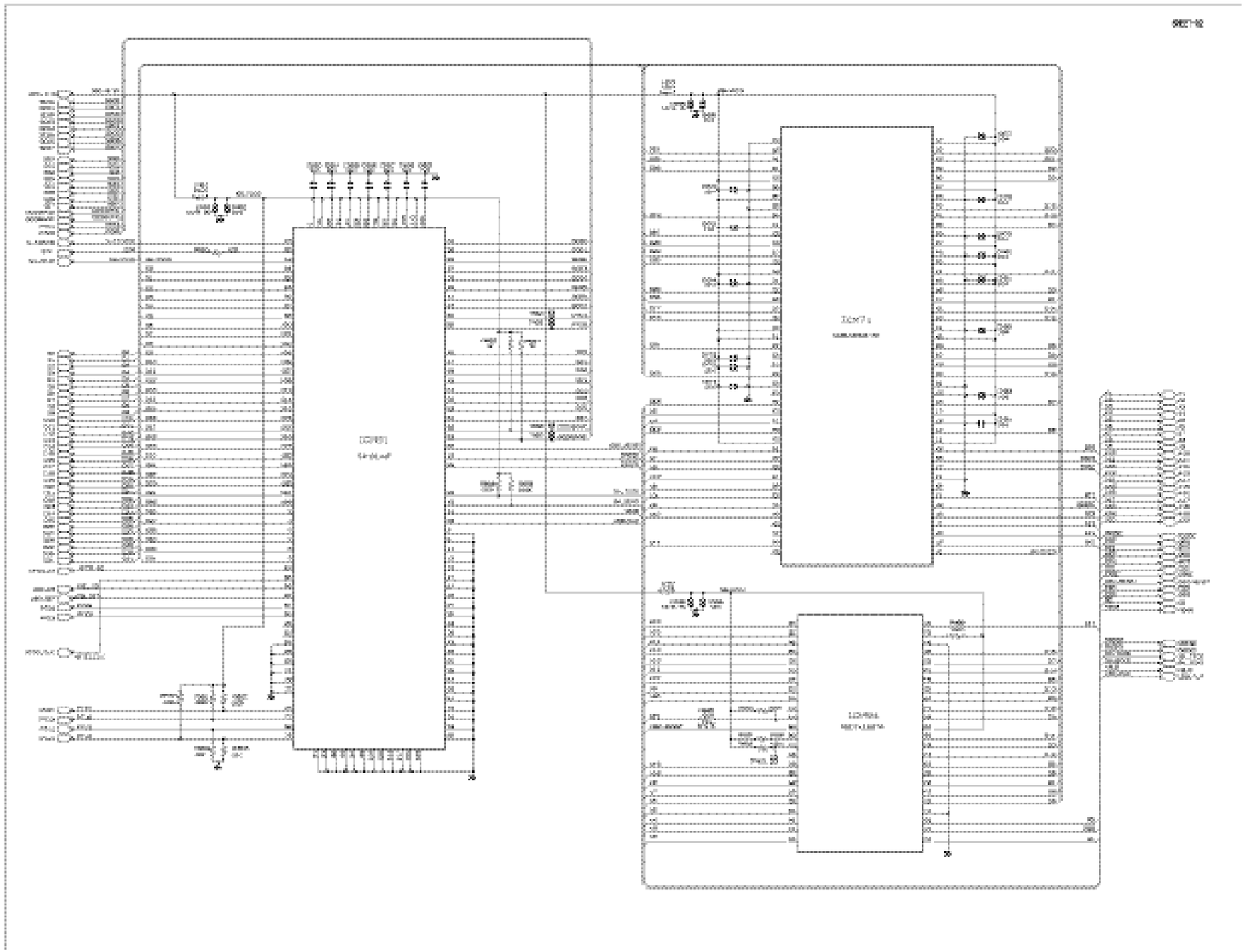
9-7 Video


TO ROTARY TRANS
CN101
IC101
VRF2
TO JACK
TO FRONT
TO EVF
IC201
VIF2
IC301
VIC2
FUJITSU MICOM
TIMER MICOM
CAMERA
DC/DC
SERVO
TO LCD
CN201
TO CVF
CN202
TO MIC
CN204
OSD
IC391

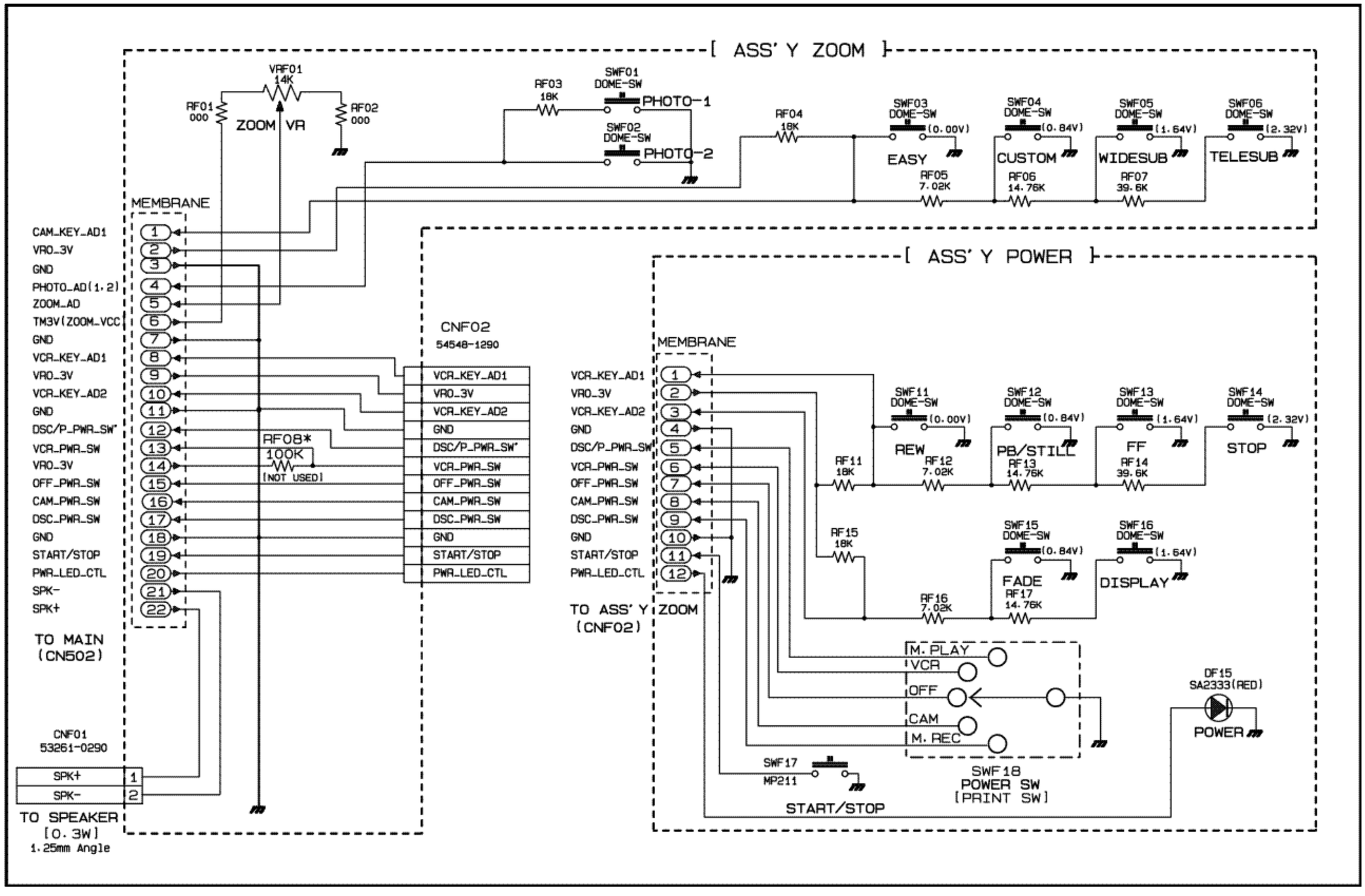
9-8 DSC 1



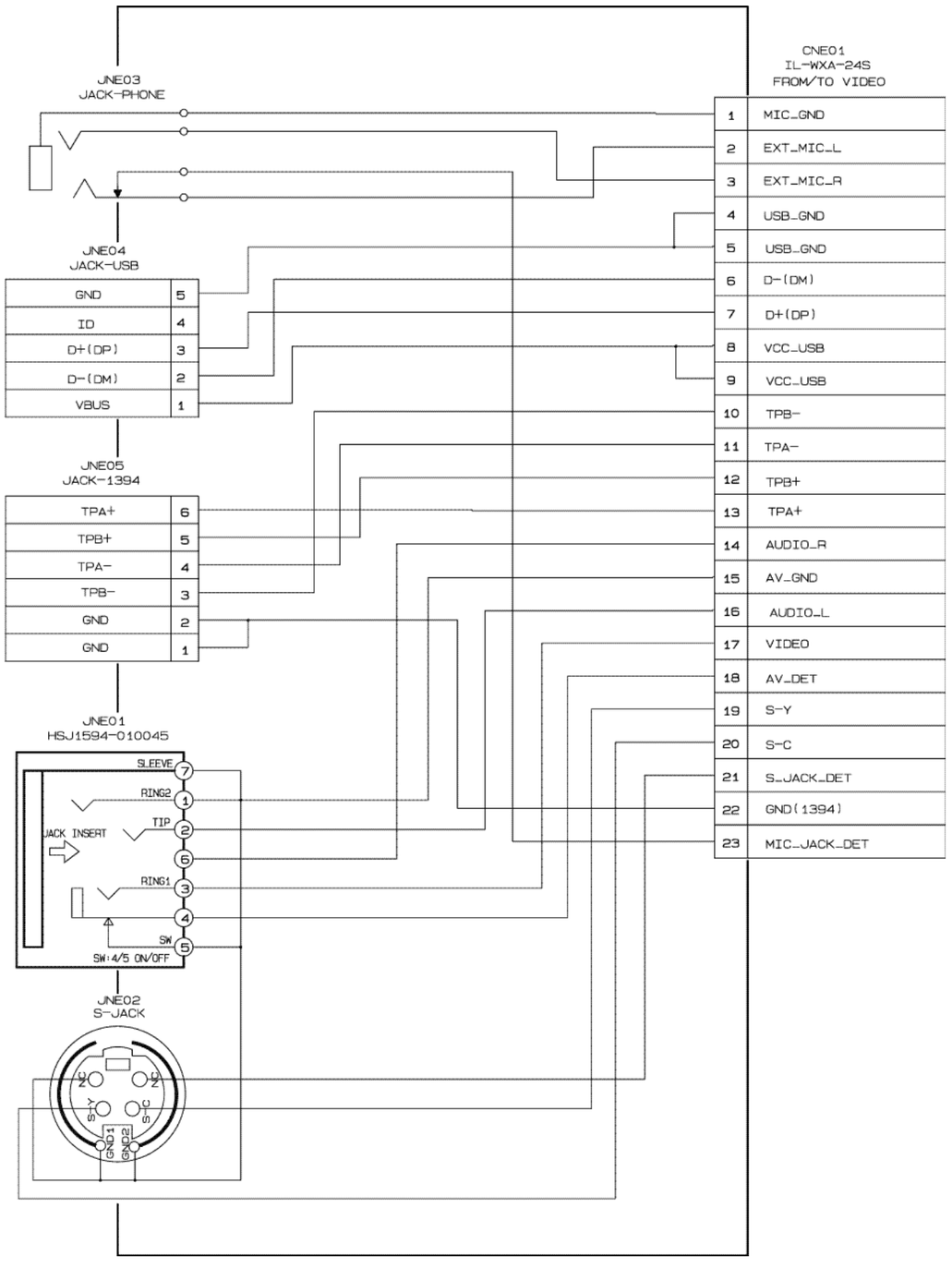
9-9 DSC 2



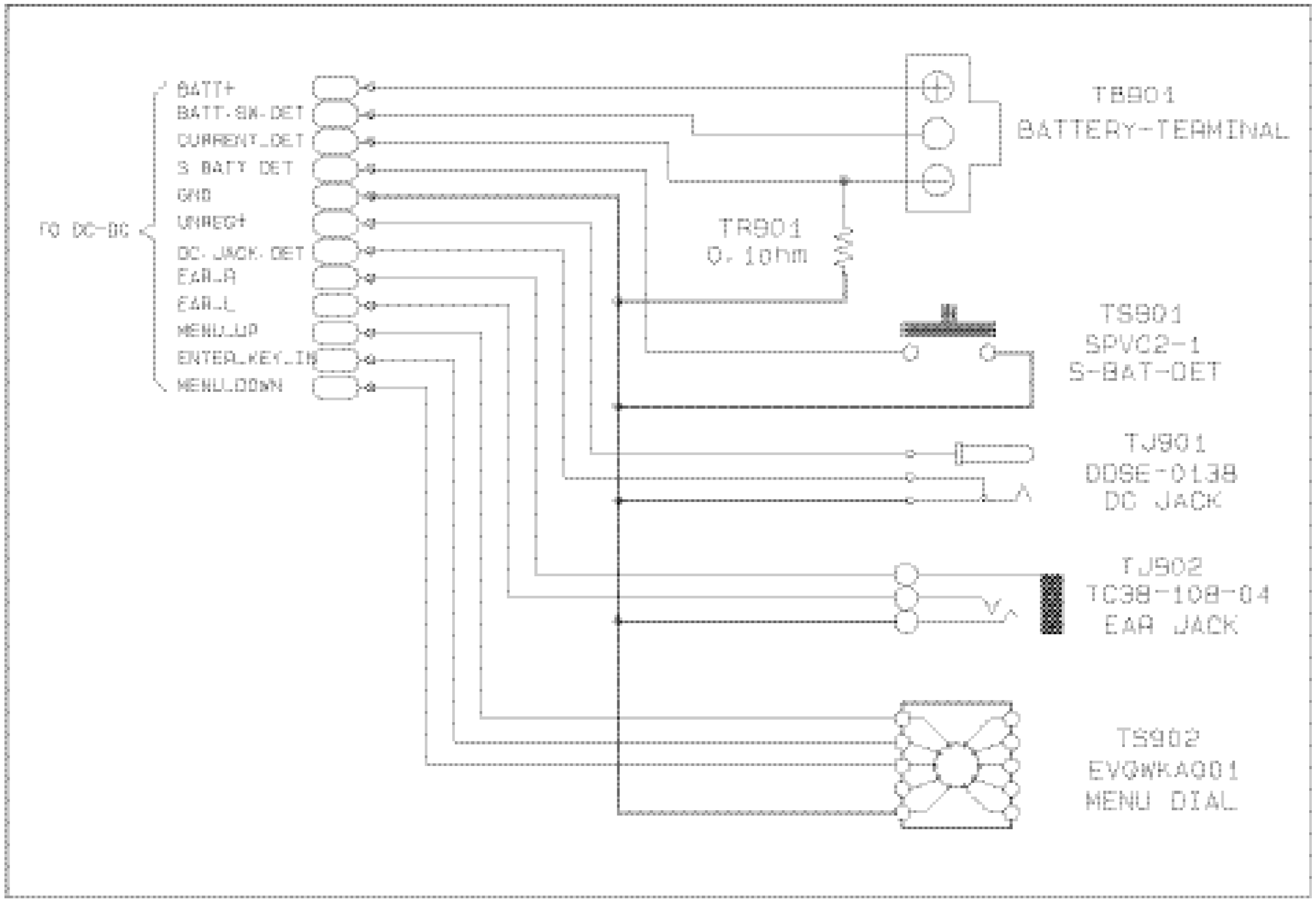
9-10 Function



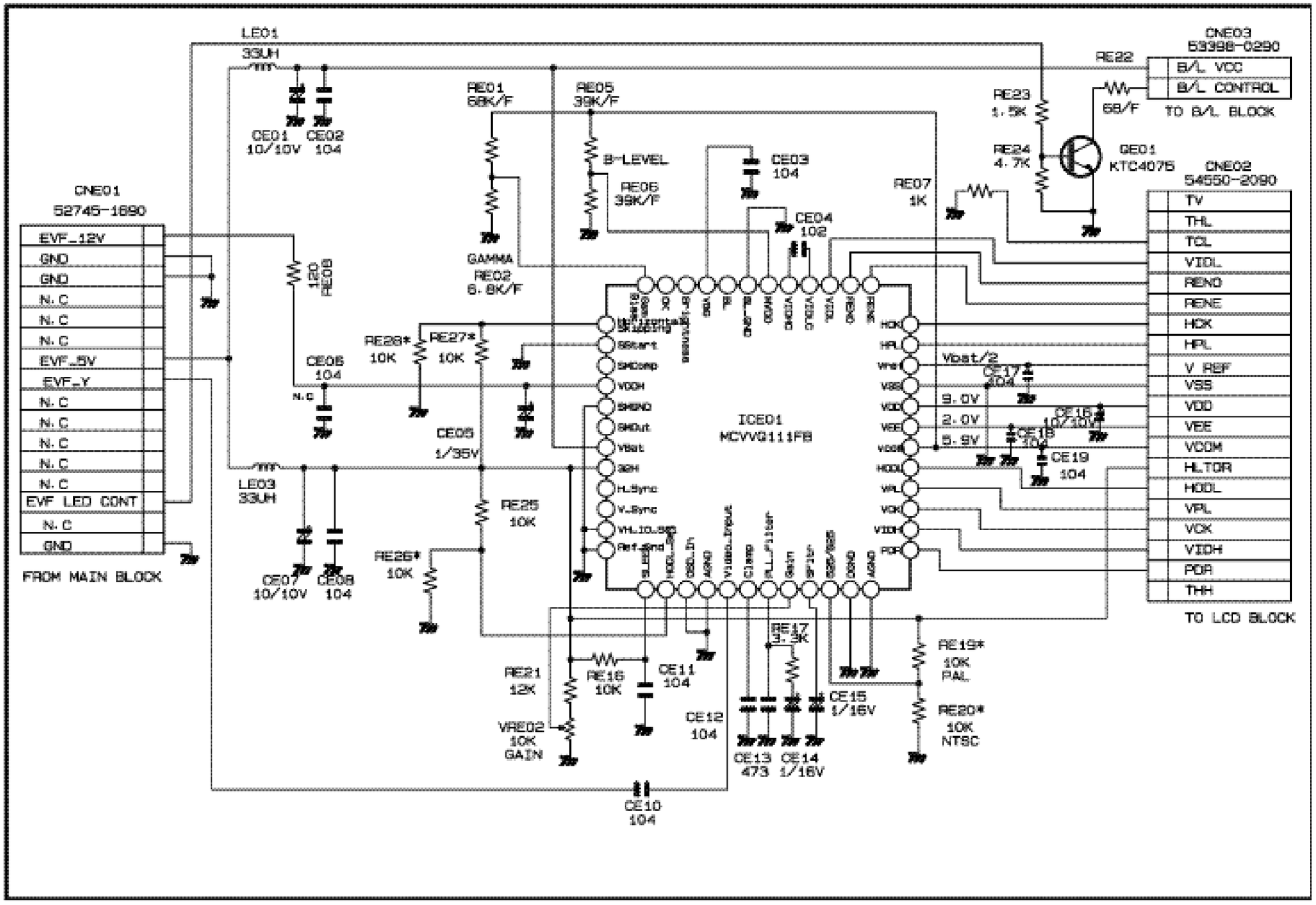
9-11 JACK BOARD



9-12 TERMINAL SCHEMATIC



9-13 EVF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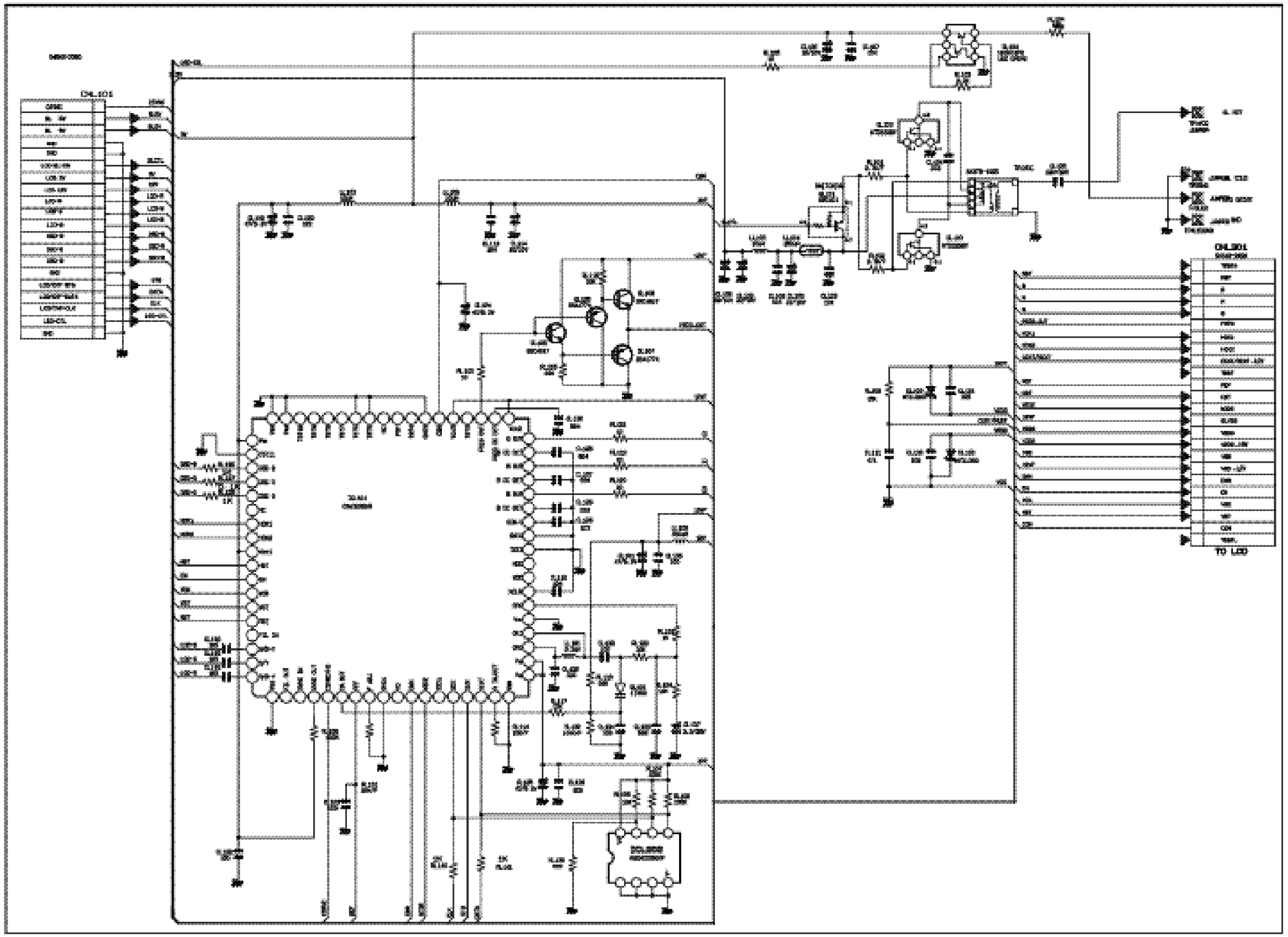
EVF_12V
GND
GND
N.C
N.C
N.C
EVF_5V
EVF_Y
N.C
N.C
N.C
N.C
N.C
EVF LED CONT
N.C
GND
FROM MAIN BLOCK
LE01
33UH
CE01 10/10V
CE02 104
RE01 68K/F
RE05 39K/F
B-LEVEL
RE06 39K/F
CE03 104
RE07 1K
CE04 102
RE22
RE23 1.5K
RE24 4.7K
68/F
GE01 KTC4075
CNE03
53398-0290
B/L VCC
B/L CONTROL
TO B/L BLOCK
CNE02
54550-2090
TV
THL
TCL
VIDL
RENO
RENE
HCK
HPL
V REF
VSS
VDD
VEE
VCOM
HLTOR
HODL
VPL
VCK
VIDH
PDR
THH
TO LCD BLOCK
GAMMA
RE02 6.8K/F
120 RE03
CE06 104
N.C
RE28* 10K
RE27* 10K
CE05 1/35V
LE03 33UH
CE07 10/10V
CE08 104
RE25 10K
RE26* 10K
ICE01
MCVVG111FB
SStart
SHComp
VDDH
SHGND
SHOut
YBat
3@H
H_Sync
V_Sync
Ref_Gnd
SLEEP
HODL_In
OSD_In
AGND
C_Lead
PLL_F1/SF
Gain
SF_Out
SDA/SCL
DGND
AGND
HCK
HPL
Vref
VSS
VDD
VEE
VCOM
HODL
VPL
VCK
VIDH
PDR
Vdat/2
9.0V
2.0V
5.9V
CE17 4DK
CE16 10/10V
CE18 104
CE19 104
RE21 12K
RE16 10K
CE11 104
VRE02 10K GAIN
CE12 104
RE17 3.3K
CE13 473
CE14 1/16V
CE15 1/16V
RE19* 10K PAL
RE20* 10K NTSC
CE10 104

9-14 LCD



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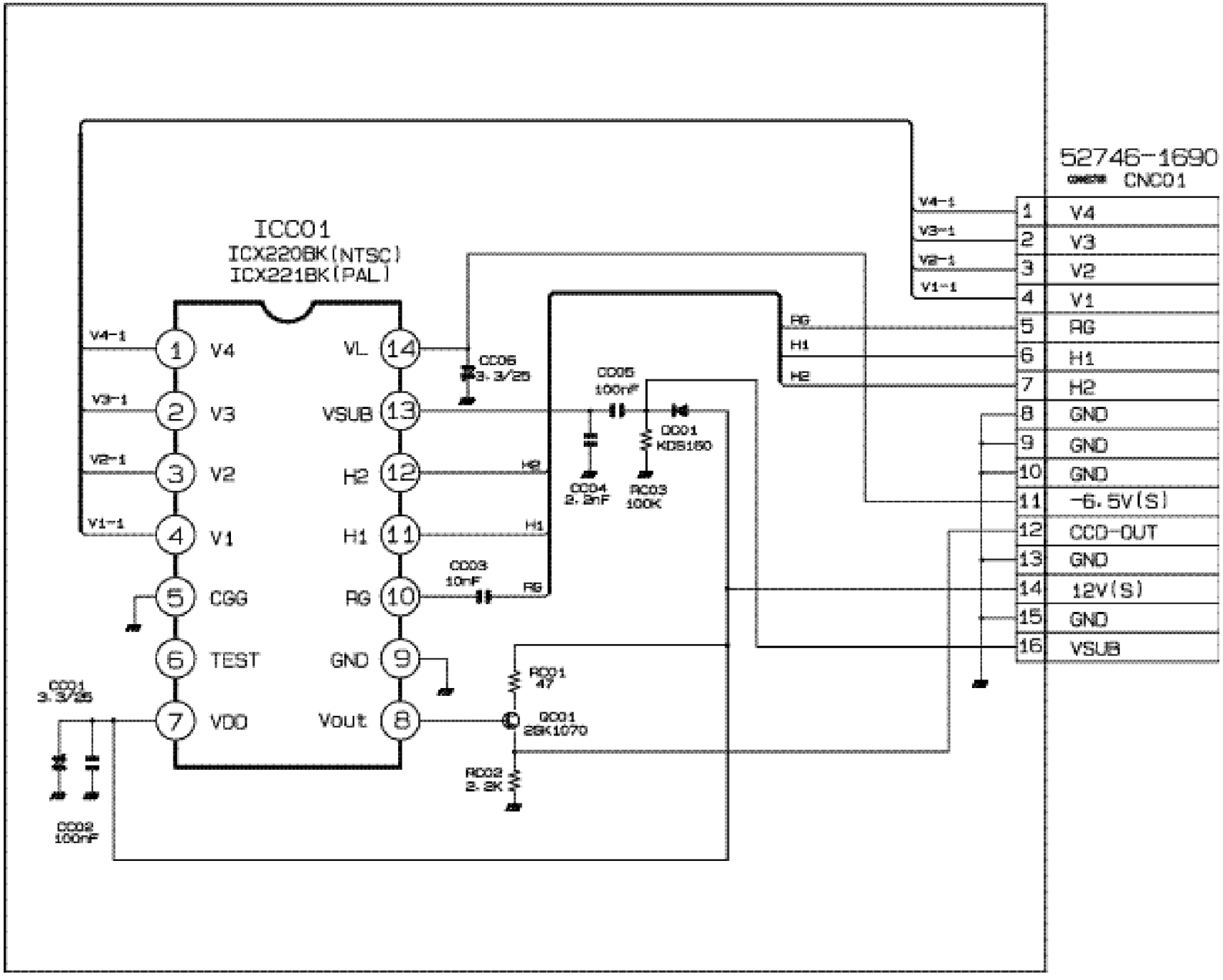
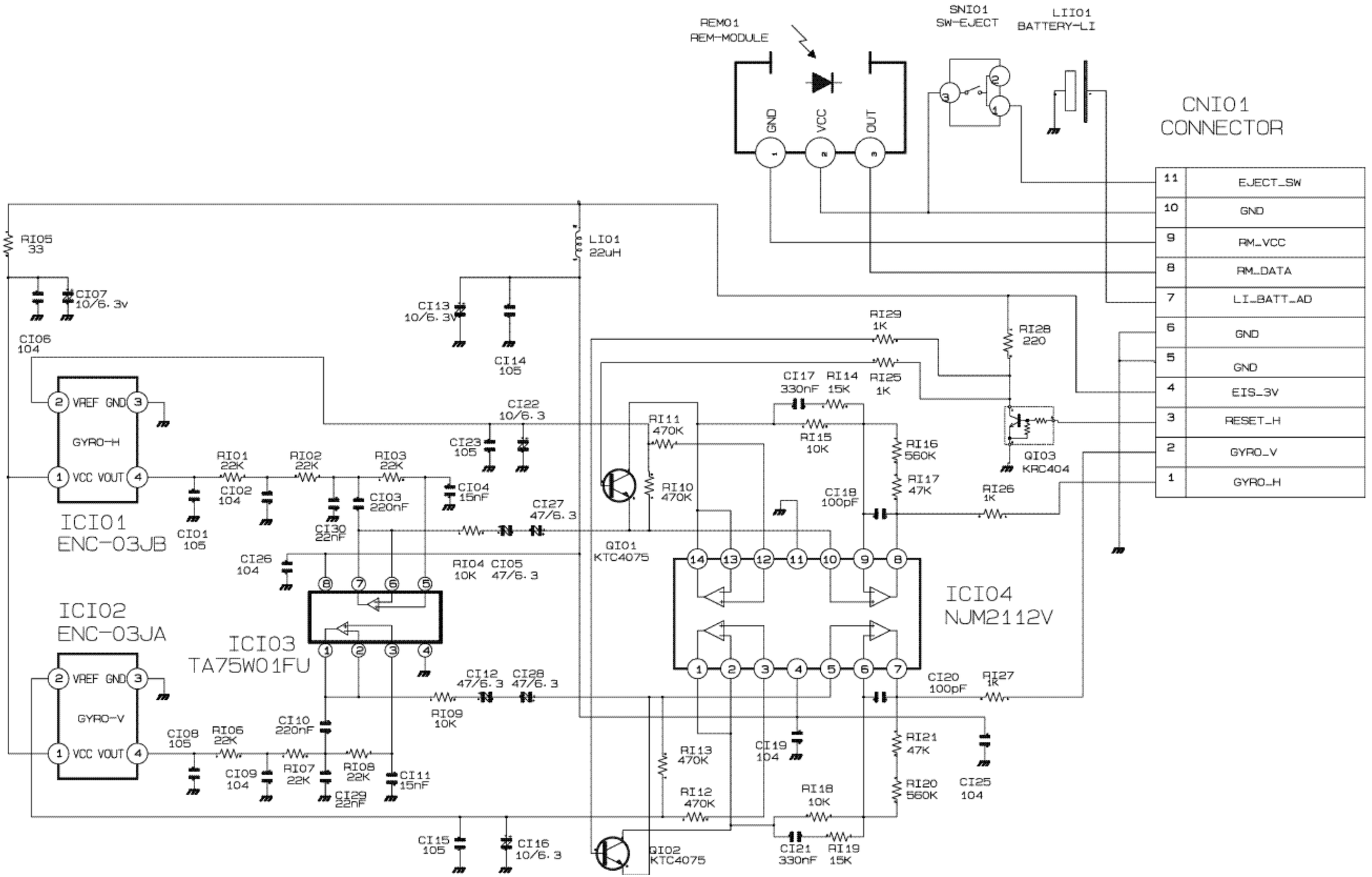
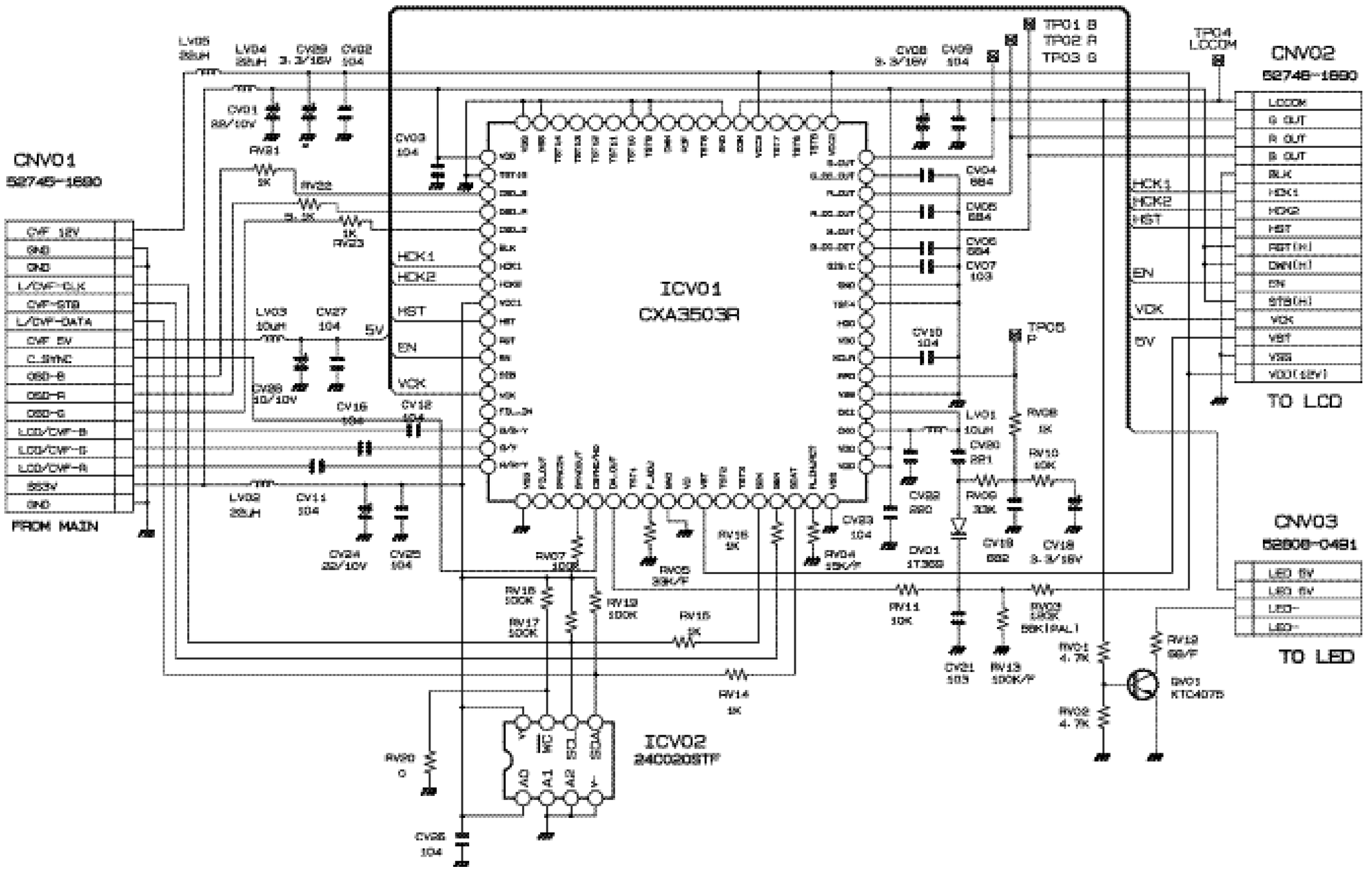

ICC01
ICX220BK(NTSC)
ICX221BK(PAL)
V4 1
V3 2
V2 3
V1 4
CGG 5
TEST 6
VDD 7
VL 14
VSUB 13
H2 12
H1 11
RG 10
GND 9
Vout 8
CC06 3.3/25
CC05 100nF
CC04 2.2nF
RC03 100K
CC03 10nF
RD01 47
GC01 2SK1070
RD02 2.2K
CC01 3.3/25
CC02 100nF
V4-1
V3-1
V2-1
V1-1
RG
H1
H2
52746-1690
CNC01
1 V4
2 V3
3 V2
4 V1
5 RG
6 H1
7 H2
8 GND
9 GND
10 GND
11 -6.5V(S)
12 CCD-OUT
13 GND
14 12V(S)
15 GND
16 VSUB

9-16 EIS


REM01
REM-MODULE
GND
VCC
OUT
SNI01
SW-EJECT
LII01
BATTERY-LI
CNI01
CONNECTOR
11 EJECT_SW
10 GND
9 RM_VCC
8 RM_DATA
7 LI_BATT_AD
6 GND
5 GND
4 EIS_3V
3 RESET_H
2 GYRO_V
1 GYRO_H
RI05 33
CI07 10/6.3v
CI06 104
LI01 22uH
CI13 10/6.3V
CI14 105
RI29 1K
RI28 220
CI17 330nF
RI14 15K
RI25 1K
CI22 10/6.3
CI23 105
RI11 470K
RI15 10K
RI16 560K
RI17 47K
QI03 KRC404
RI01 22K
RI02 22K
RI03 22K
CI02 104
CI04 15nF
CI03 220nF
CI18 100pF
RI26 1K
CI27 47/6.3
CI30 22nF
CI01 105
ICI01 ENC-03JB
QI01 KTC4075
RI10 470K
CI26 104
RI04 10K
CI05 47/6.3
ICI04 NJM2112V
ICI02 ENC-03JA
ICI03 TA75W01FU
CI12 47/6.3
CI28 47/6.3
RI09 10K
CI20 100pF
RI27 1K
CI10 220nF
CI08 105
RI06 22K
RI07 22K
RI08 22K
CI09 104
CI11 15nF
CI29 22nF
RI13 470K
CI19 104
RI21 47K
RI12 470K
RI18 10K
RI20 560K
CI25 104
CI15 105
CI16 10/6.3
QI02 KTC4075
CI21 330nF
RI19 15K
GYRO-H
GYRO-V
VREF GND
VCC VOUT

9-17 CVF


CNV01
52745-1690
CVF 12V
GND
GND
L/CVF-CLK
CVF-STB
L/CVF-DATA
CVF 5V
C_SYNC
OSD-B
OSD-R
OSD-G
LCD/CVF-B
LCD/CVF-G
LCD/CVF-R
5V
GND
FROM MAIN
LV05 33uH
LV04 33uH
CV29 3.3/16V
CV02 104
CV01 33/10V
RV21
5K
RV22
3.3K
1K
RV23
CV03 104
HCK1
HCK2
HST
EN
VCK
LV03 10uH
CV27 104
5V
CV28 10/10V
CV16 10n
CV12 104
LV02 33uH
CV11 104
CV24 22/10V
CV25 104
RV07 100K
RV16 100K
RV17 100K
RV12 100K
RV15 1K
RV14 1K
RV06 39K/F
RV04 15K/F
RV20 0
ICV01
CXA3503R
ICV02
24C02BSTF
SCL
SDA
A0
A1
A2
CV08 9.3/16V
CV09 104
CV04 684
CV05 684
CV06 684
CV07 103
CV10 104
CV22 220
CV23 104
RV11 10K
RV16 1K
DV01 1T362
LV01 10UH
CV20 22P1
RV08 5K
RV10 10K
RV09 33K
CV19 682
CV18 9.3/16V
CV21 103
RV13 100K/F
RV01 4.7K
RV02 4.7K
RV12 68/F
QV01 KTC4075
TP01 B
TP02 R
TP03 G
TP04 LCCOM
TP05 P
CNV02
52748-1690
LCCOM
G OUT
R OUT
B OUT
BLK
HCK1
HCK2
HST
RST(H)
DWN(H)
EN
STB(H)
VCK
VST
VSS
VDD(12V)
TO LCD
CNV03
52808-0481
LED 5V
LED 5V
LED-
LED-
TO LED

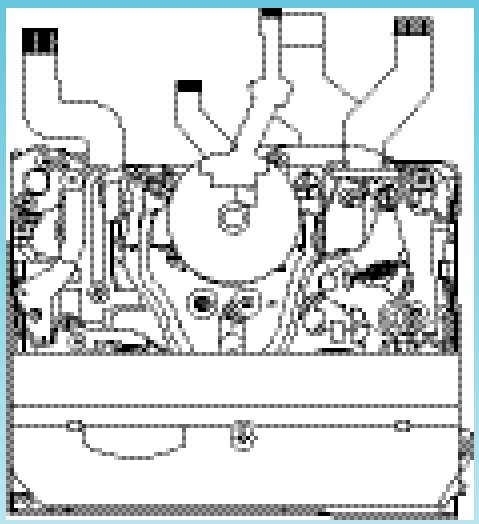
SAMSUNG

DIGITAL COMCORDER DECK
CSM-2000

MECHANICAL Manual

File with the SERVICE MANUAL.

DIGITAL CAMCORDER DECK



CONTENTS

1. Operation
2. Adjustment
3. Disassembly and Reassembly

ELECTRONICS

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Printed in korea
AD68-30200A

1. Operation

1-1 Nomenclature

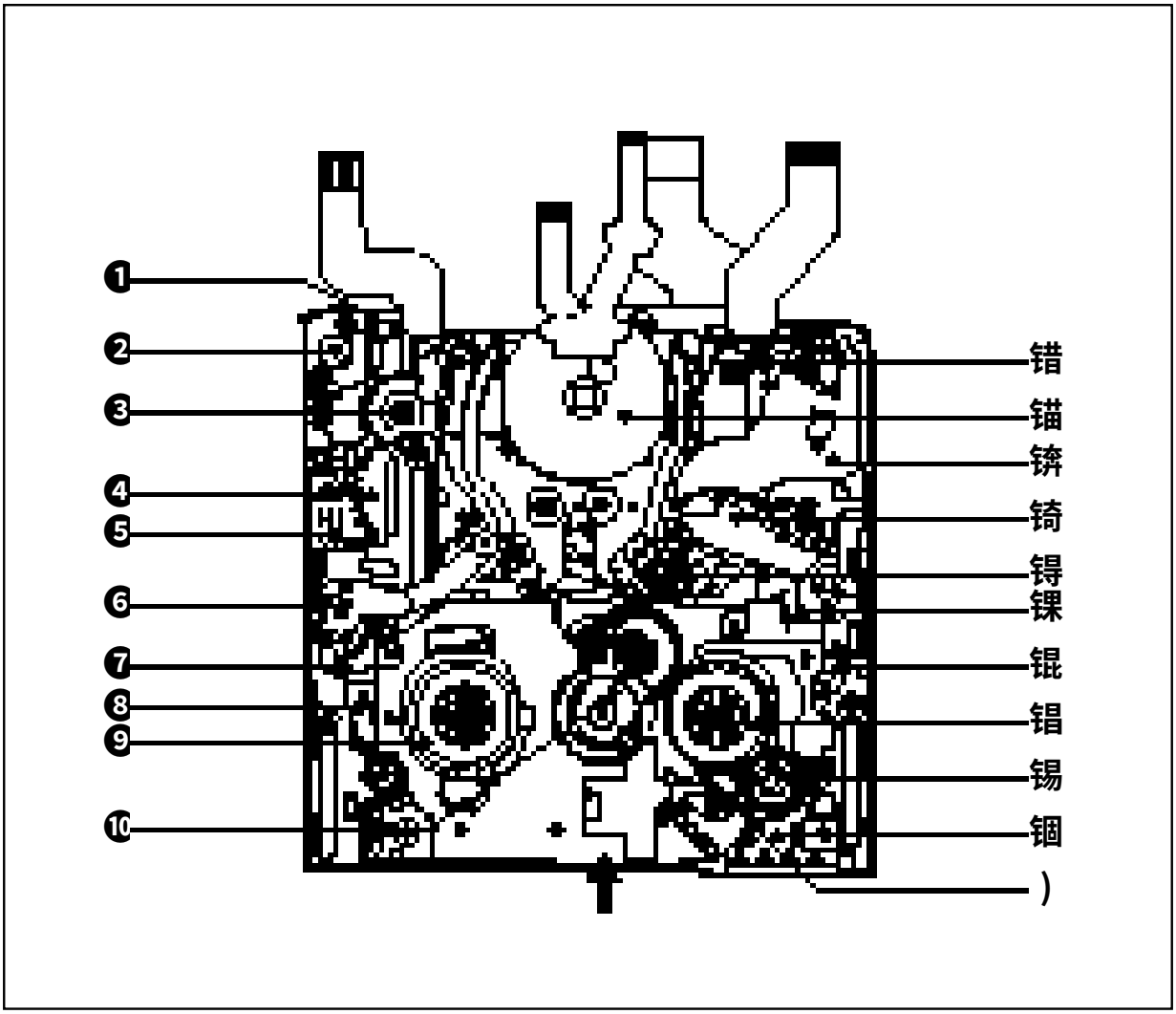


Fig 1-1

❶ BASE DRUM
❷ MOTOR LOADING
❸ GEAR WHEEL
❹ GEAR MODE SWITCH
❺ GUIDE TENSION CAM
❻ ARM TENSION
❼ BRAKE TENSION
❽ BRAKE S
❾ REEL DISK S
❿ IDLER
错 HOLDER FPC SUB
锚 DRUM
锛 MOTOR CAPSTAN
锜 REVIEW ARM
锝 ARM PINCH
锞 COVER REEL
锟 LEVER EJECT
锠 REEL DISK T
锡 BRAKE PULLY
锢 SWITCH MIC
) BRAKE MAIN T

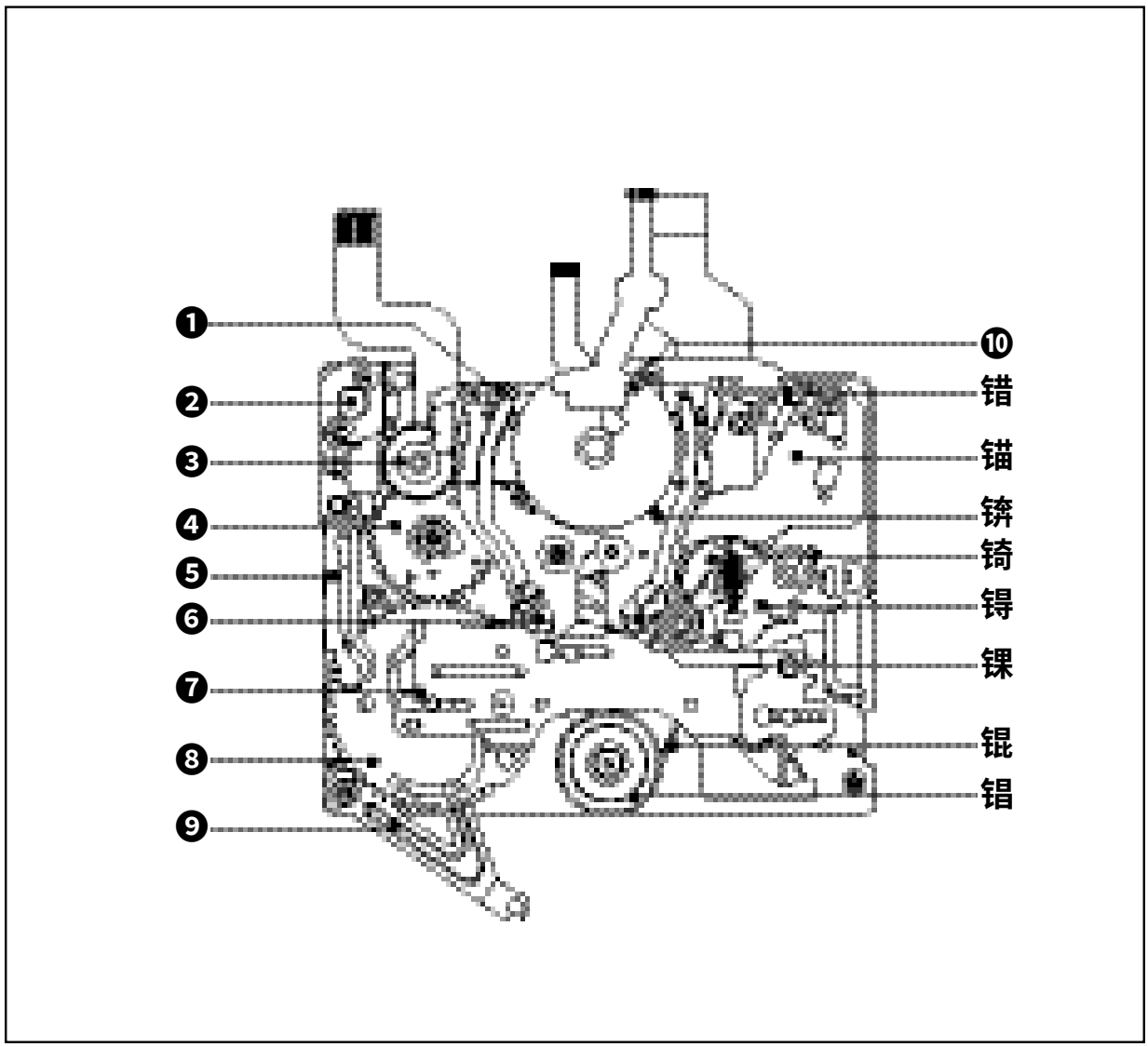


Fig 1-2

❶ BASE DRUM
❷ MOTOR LOADING
❸ GEAR WHEEL
❹ GEAR MODE SWITCH
❺ GUIDE TENSION CAM
❻ POLE BASE S
❼ SLIDE MAIN
❽ GEAR CAM MAIN
❾ LEVER CAM
❿ DRUM
错 HOLDER FPC SUB
锚 MOTOR CAPSTAN
锛 GUIDE RAIL
锜 GEAR CAPSTAN
锝 ARM PINCH
锞 POLE BASE T
锟 TIMMING BELT
锖 GEAR PULLY

1-2 Switch Modes

Table 1-1 Switch Mode Code

Modes	signal 2 + common	Rotation Angle of Gear Mode	Mechanical state
EJECT	18kΩ	-68.5。 ~ -46.6。	Open housing
UNLOAD	36	-4。 ~ 4。	Standby Cassette down
LD 1	54	51。 ~ 59。	Idler Rotate and stop in loading mode
LD 2	72	70。 ~ 140.8。	Capstan Rotate in unload mode
STOP	90	199.89。 ~ 207.85。	stop
PLAY	0	269.3。 ~ 288.5。	In REC/PB/CUE/FF/PAUSE

※ Fig is based Eject Mode.

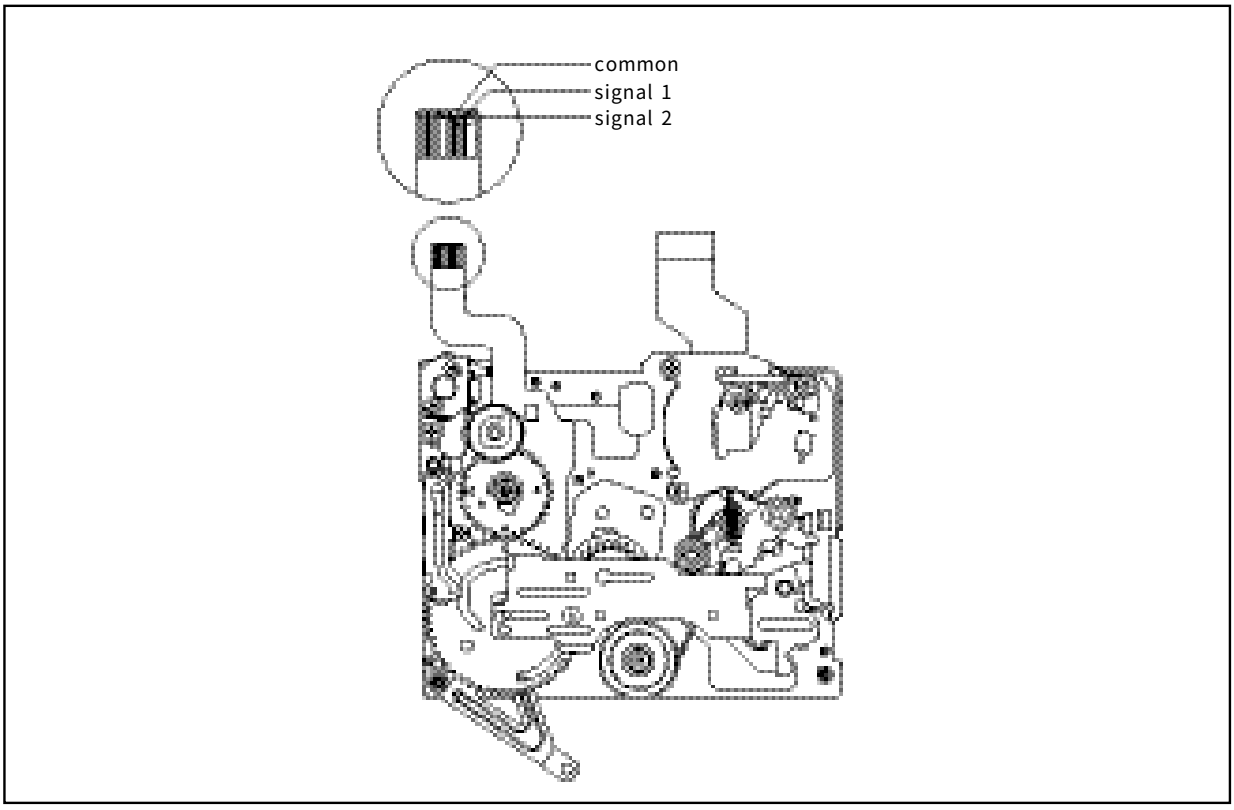


Fig 1-3

1-3 Operation

1-3-1 Gear Train

Moter Loading ❶ rotates
(Gear Worm Motor ❷ → Gear Worm Loading ❸)
↓
Gear Wheel ❹ rotates
↓
Gear Mode Switch ❺ rotates
↓
Gear Cam Main ❻ rotates

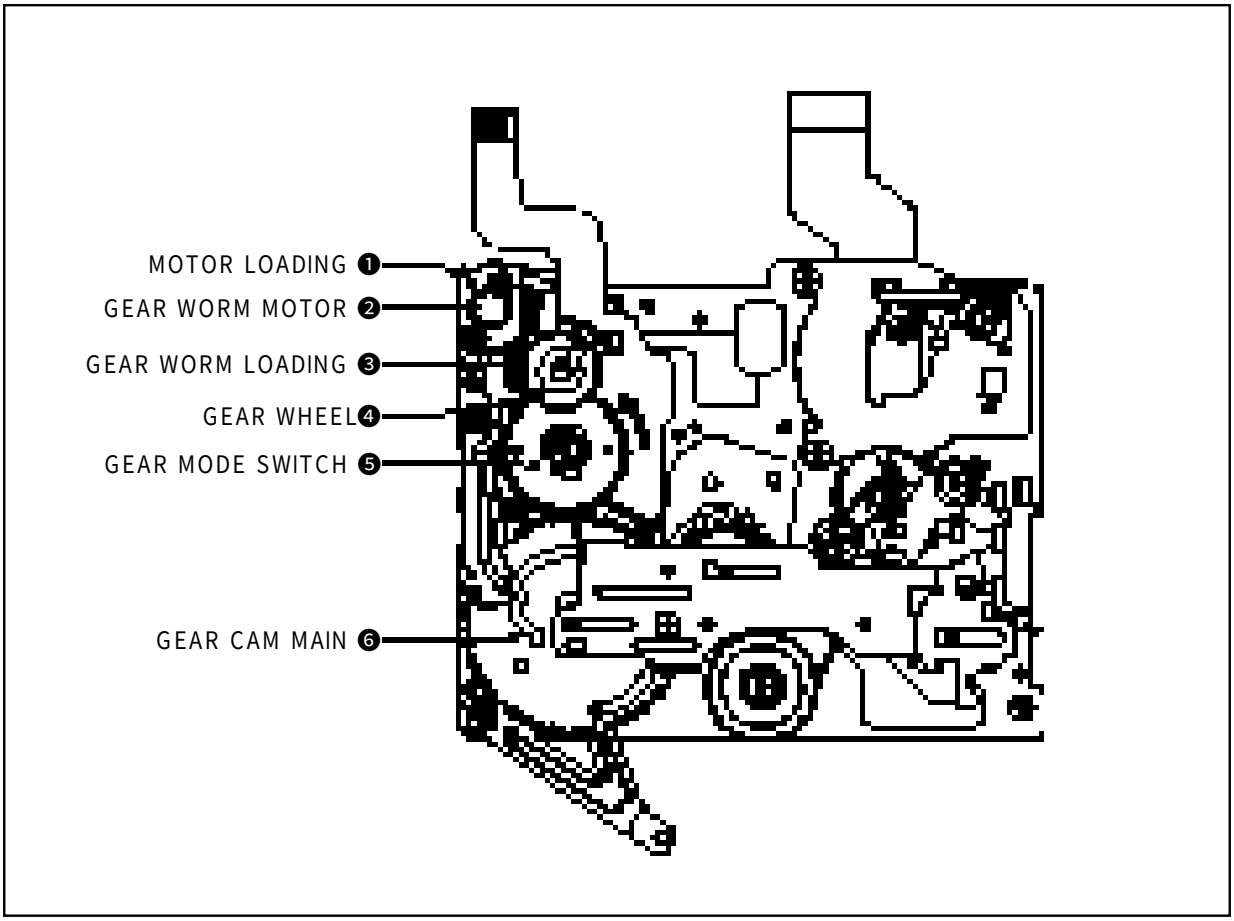


Fig 1-4

1-3-2 Chassis Sub

Motor Loading ❶ rotates.
↓
Gear Wheel ❷ rotates.
↓
Gear Mode Switch ❸ rotates.
↓
Gear Cam Main ❹ rotates.
↓
Lever Cam ❹ rotates.
↓
Chassis Sub ❻ moves.

Mode	Chassis Sub
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

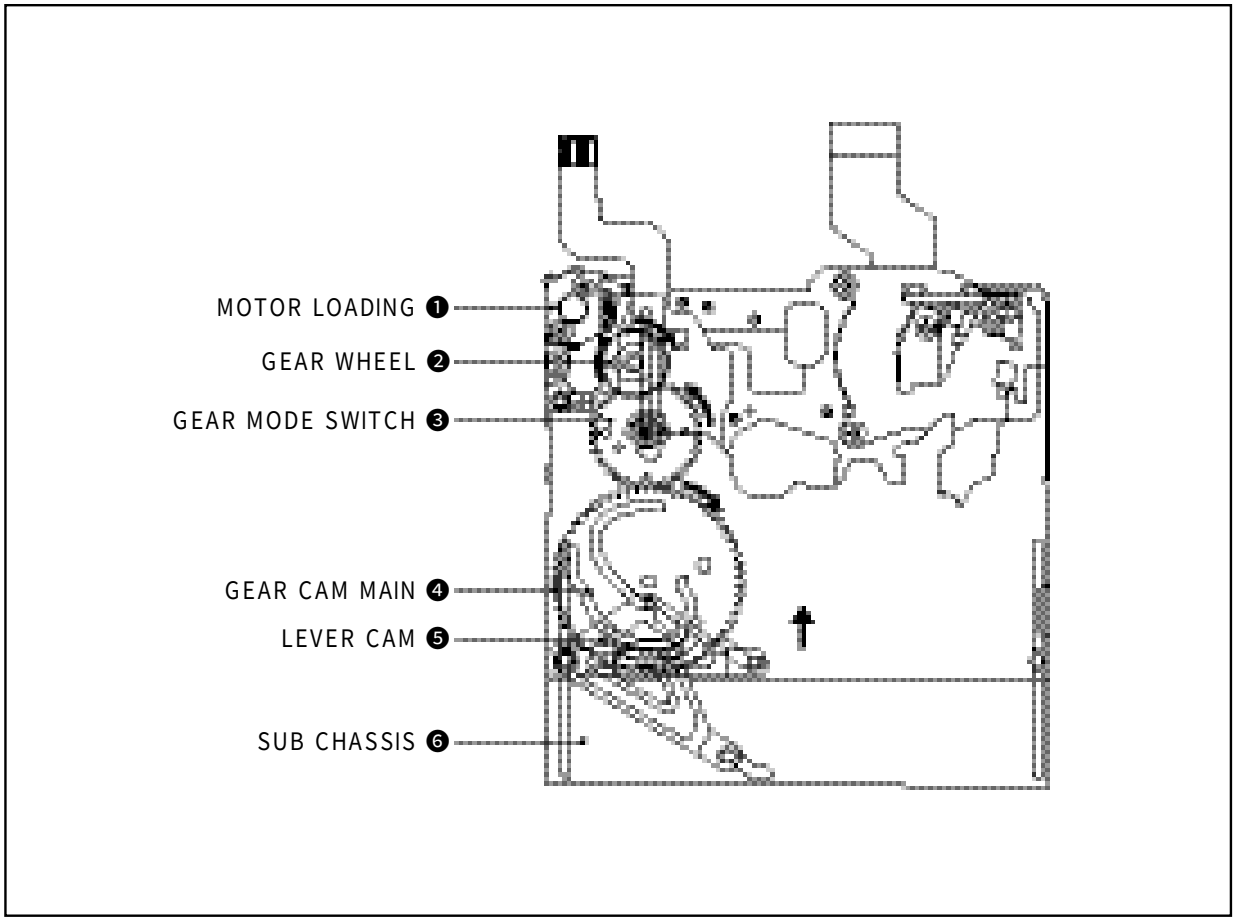


Fig 1-5

1-3-3 Brake S(SUB/MAIN)

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Slide Main ❸ slides in direction of arrow.
↓
Brakes S ❹ released or operated to Reel Disk S ❺ by slide Main ❸.

Mode	Sub Brake	Main Brake
EJECT	OFF ON	OFF ON
UNLOAD		
LD 1		
LD 2		
STOP		
PB		

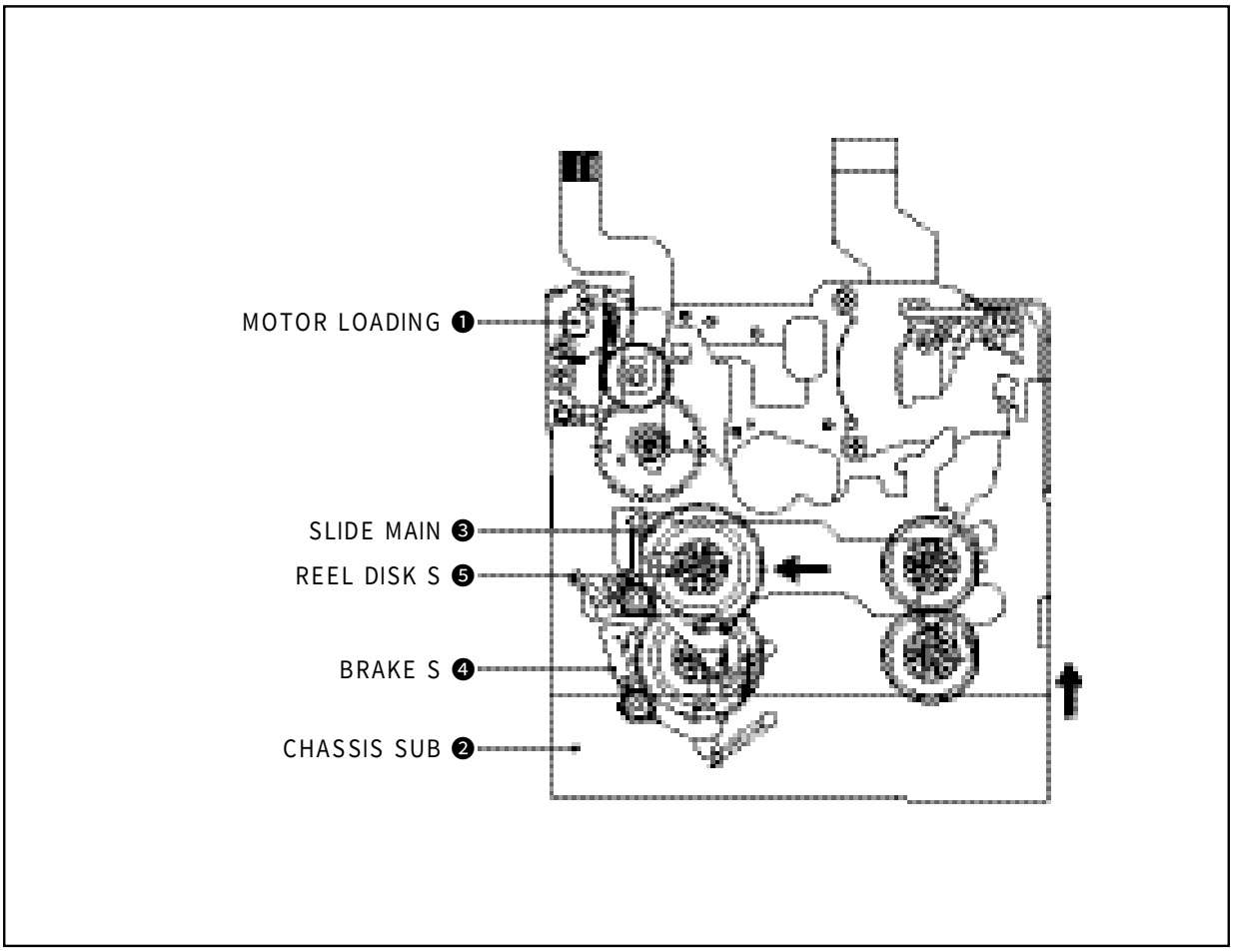


Fig 1-6

1-3-4 Brake T

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Slide Main ❸ slides in direction of arrow.
↓
Brake T ❹ released or operated to Reel disk T ❺ by slide Main ❸

Mode	Brake Main T
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PB	

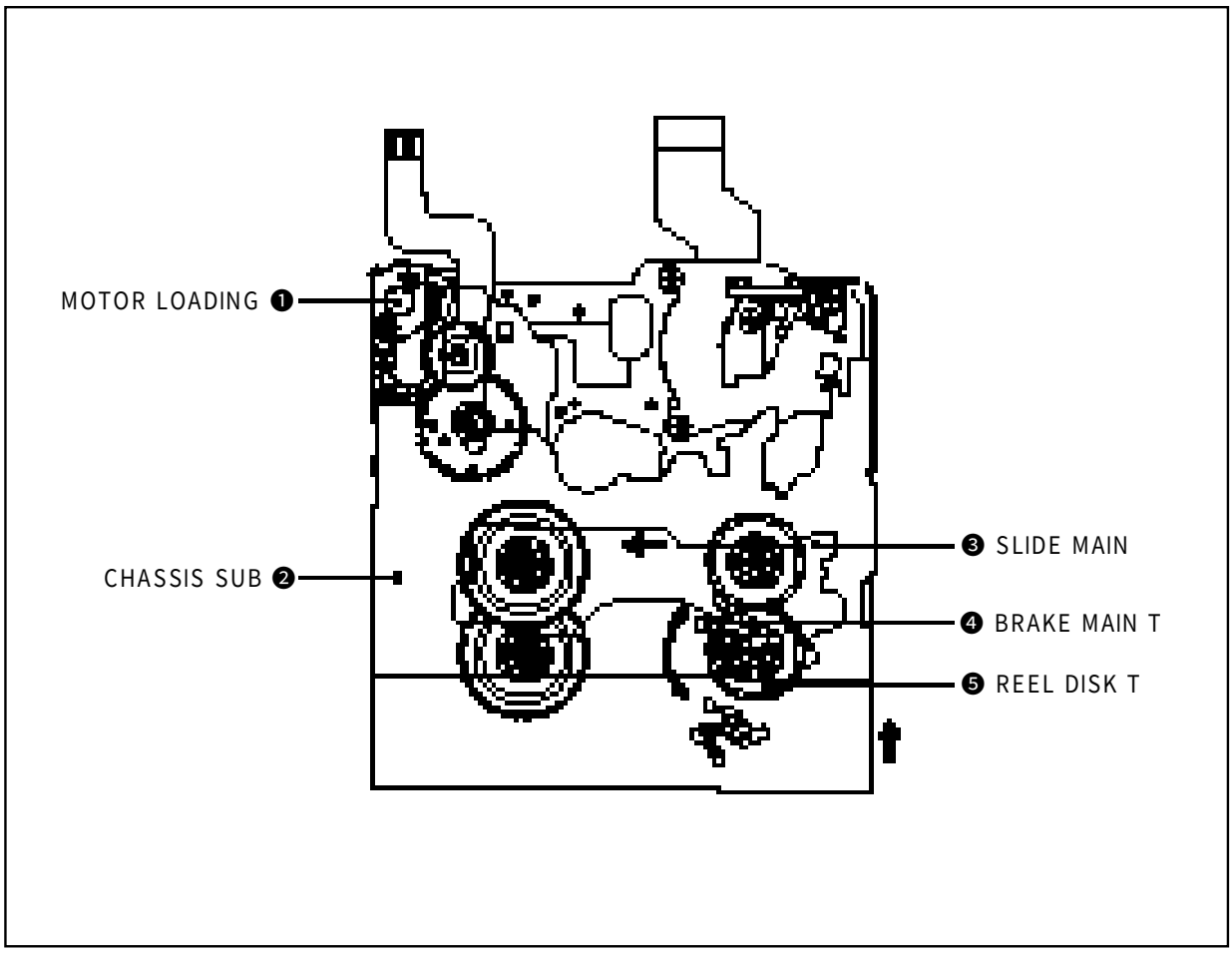


Fig 1-7

1-3-5 Arm Tension

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Arm Tension ❻ slides in direction of arrow by Guide tension cam ❸ and cam curve A ❹
↓
Brake tension ❼ released or operated connection with Arm Tension.
↓
After Loading finished, Arm Tension ❻ is controled by cam curve ❾ of Gear Mode Switch ❽.

Mode	Arm Tension
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

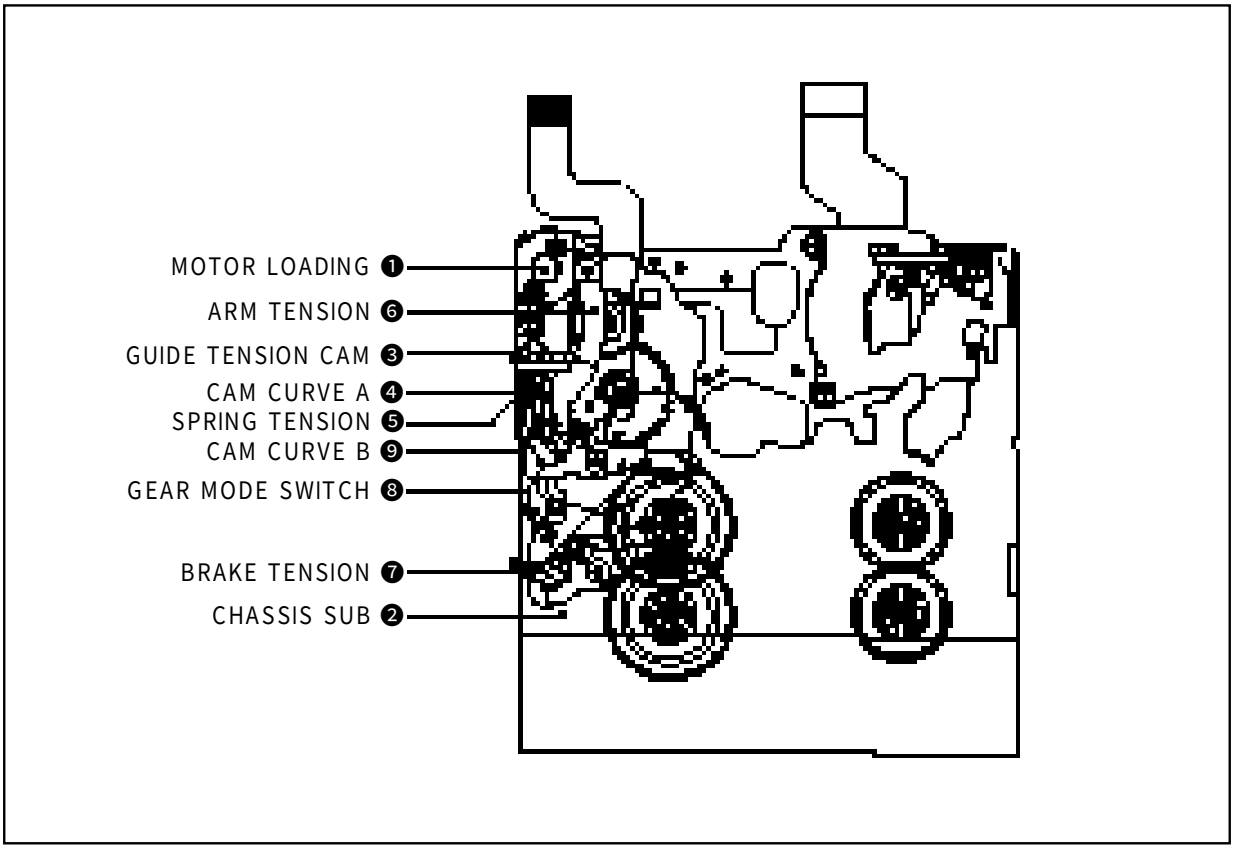


Fig 1-8

1-3-6 Arm Pinch

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ moves.
↓
Arm Pinch ❹ rotates cam curve A ❸ of Chassis Sub ❷.
↓
After Chassis Sub ❷ is finished loading, slider main ❺ slides in direction of arrow.
↓
Pinch Roller ❻ contacts shaft of Motor capstan ❼.
↓
Motor loading ❶ rotates in reverse.
↓
Slide main ❺ moves in reverse direction of arrow.
↓
Pinch Roller ❻ released from shaft of Motor Capstan ❼ by spring force of spring Lever pinch ❽.

Mode	Arm Pinch
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

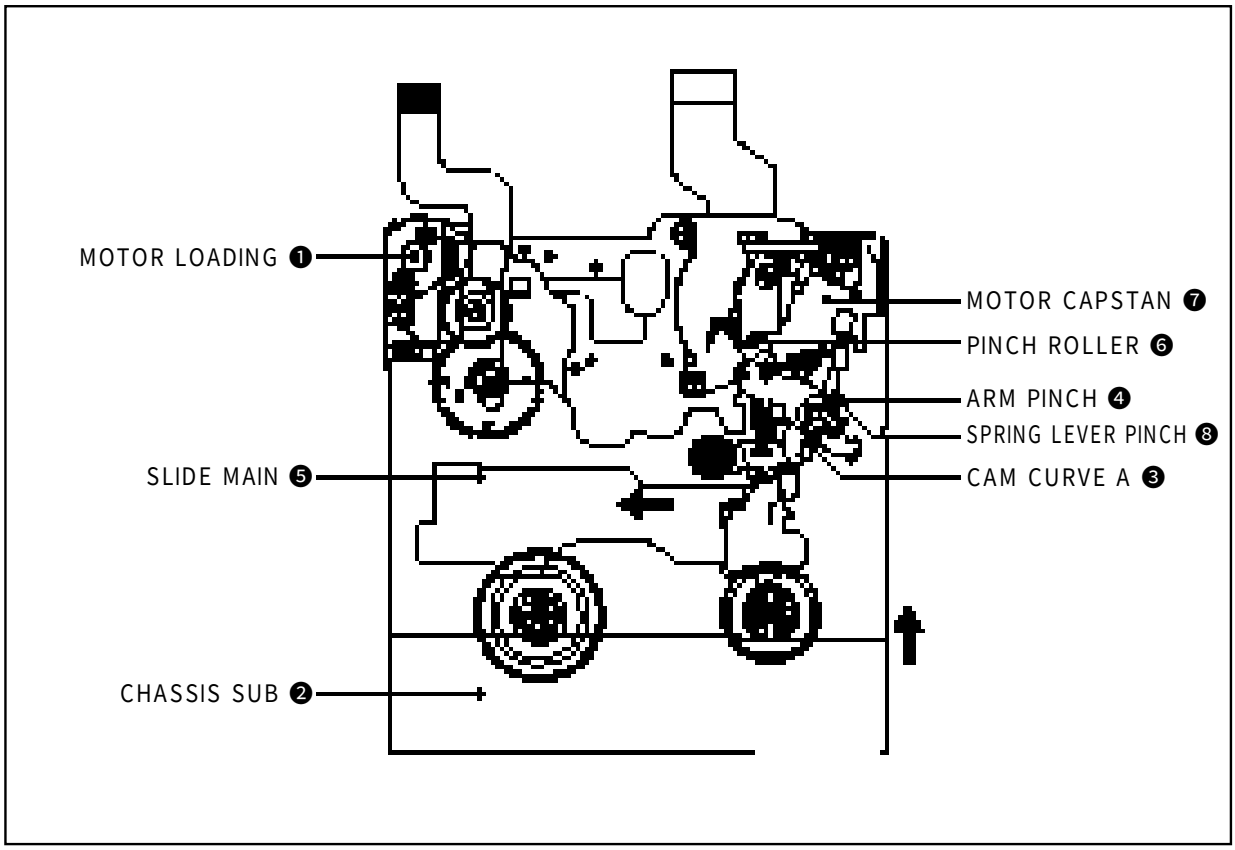


Fig 1-9

1-3-7 Arm Review

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ moves.
↓
Arm Review ❺ simultaneously rotates clockwise and translates via cam curve ❹ of Chassis Main ❸

Mode	Arm Review
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

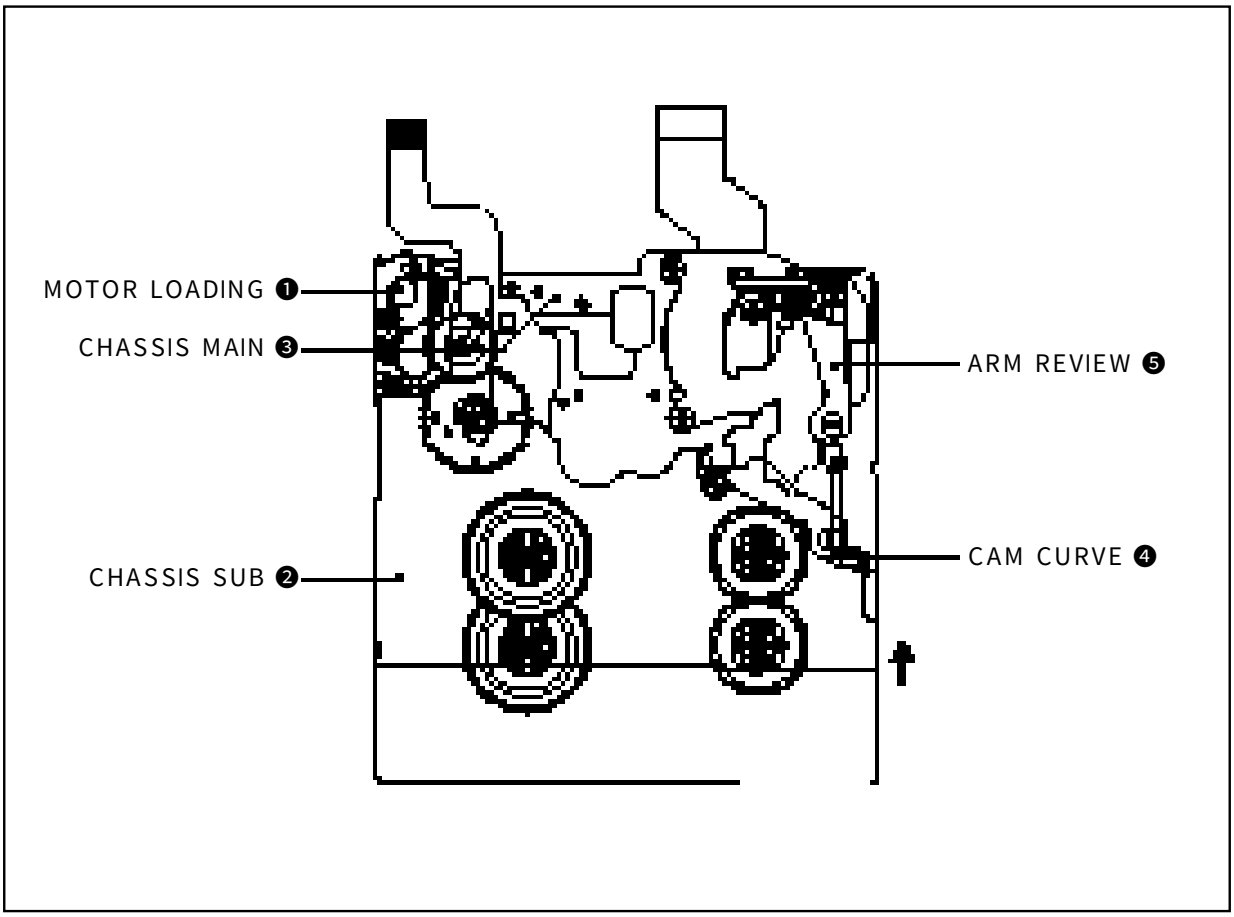


Fig 1-10

1-3-8 Pole Base S, T

Motor Loading ❶ rotates.
↓
Gear Wheel ❷ rotates.
↓
Gear Mode Switch ❸ rotates.
↓
Gear Cam Main ❹ rotates.
↓
Gear connector ❺ rotates.
↓
Arm Loading S and T are actuated by Gear Loading S ❻ and T ❼.
↓
Pole Base S ❽ and T ❾ slide along S and T rails.
↓
Pole Base S ❽ and T ❾ attach to V home of Base Drum 閣.

Mode	Pole Base S, T
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

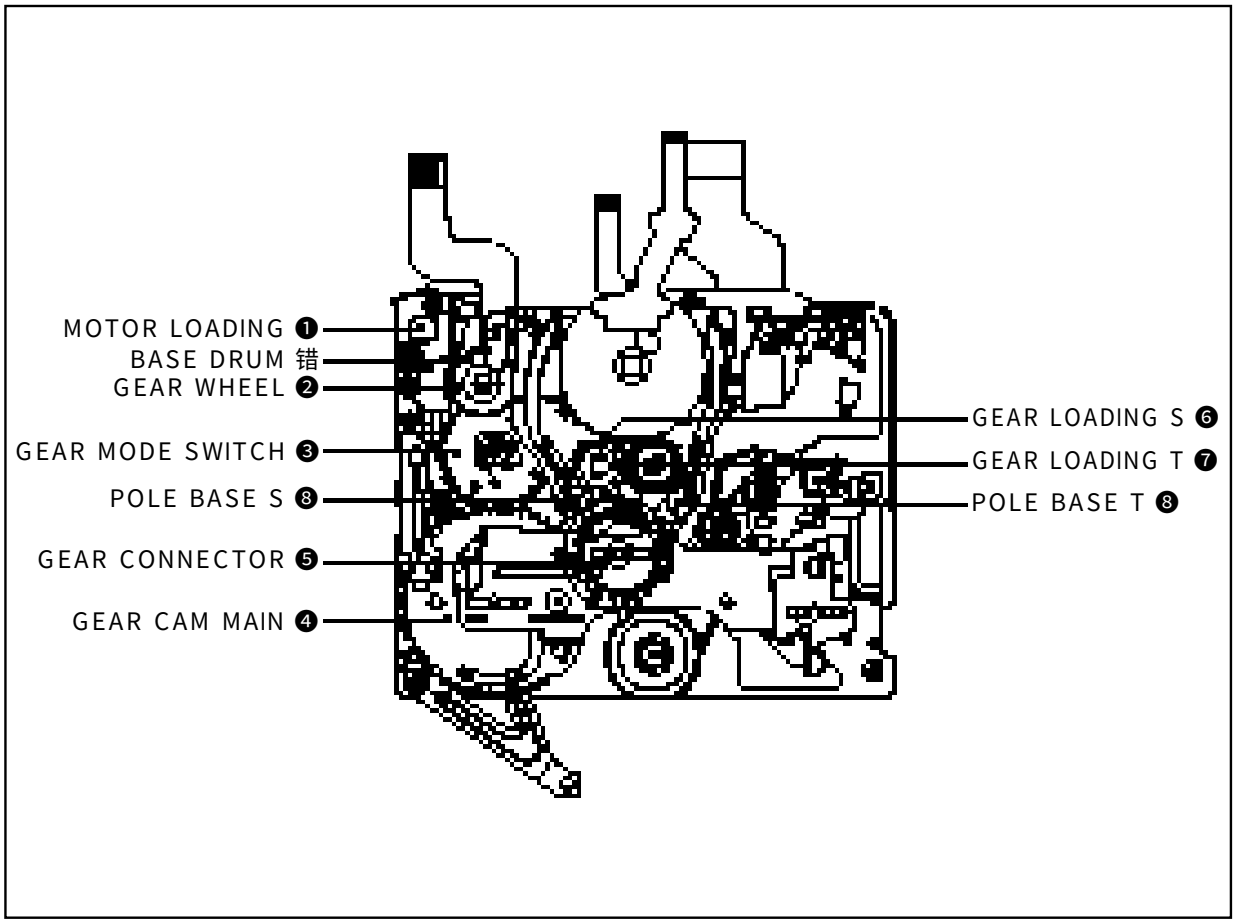


Fig 1-11

1-3-9 Reel Driving

Motor Capstan ❶ rotates.
↓
Gear Capstan ❷ rotates.
↓
Belt timming ❸ transmits rotation to Gear pully ❹.
↓
Gear Idler ❺ engages Reel Disk T ❻ or Reel Disk S ❻.
↓
Reel Disk T ❻ or Reel Disk S ❼ rotates.

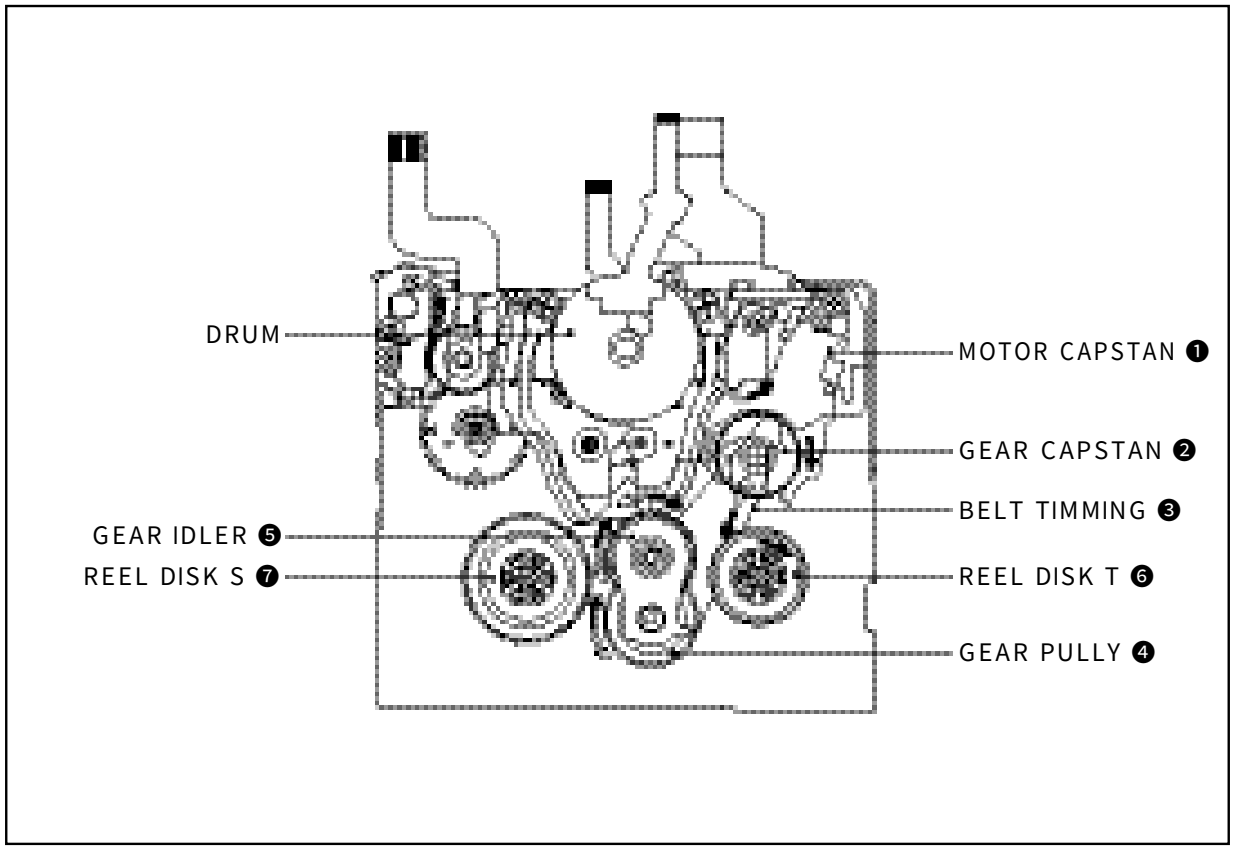
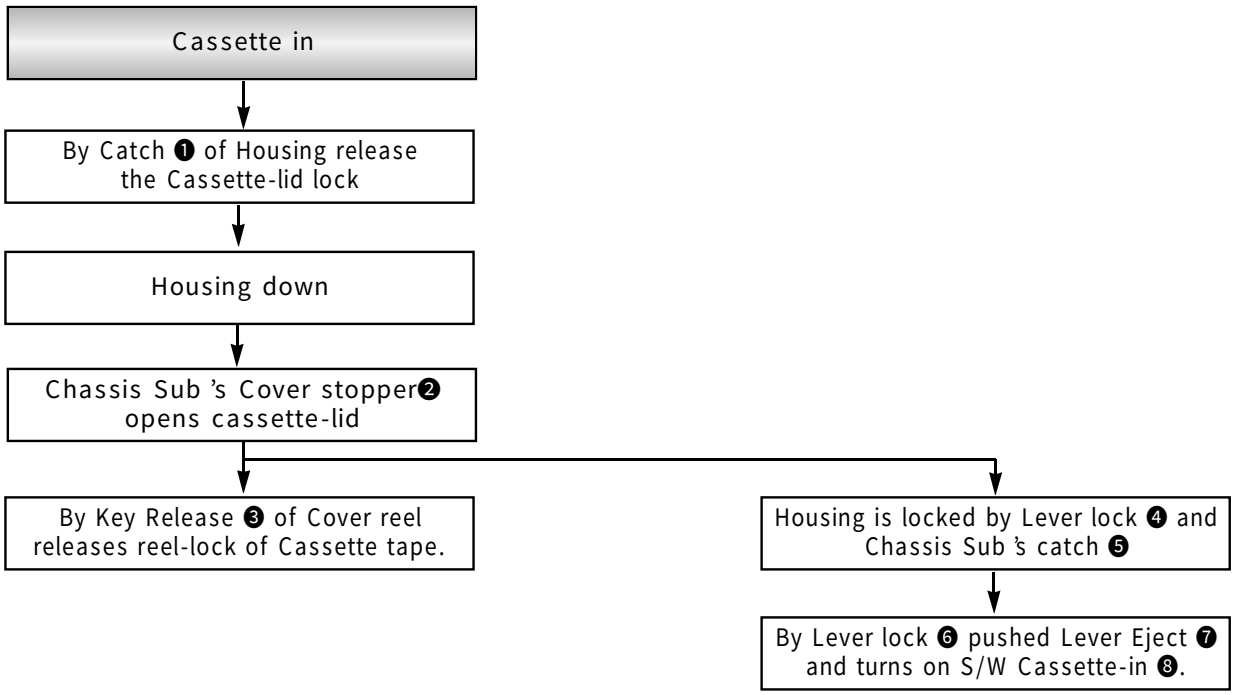


Fig 1-12

1-4 Mode Transitions

1-4-1 Cassette in → Cassette down


Cassette in
By Catch ❶ of Housing release the Cassette-lid lock
Housing down
Chassis Sub 's Cover stopper❷ opens cassette-lid
By Key Release ❸ of Cover reel releases reel-lock of Cassette tape.
Housing is locked by Lever lock ❹ and Chassis Sub 's catch ❺
By Lever lock ❻ pushed Lever Eject ❼ and turns on S/W Cassette-in ❽.

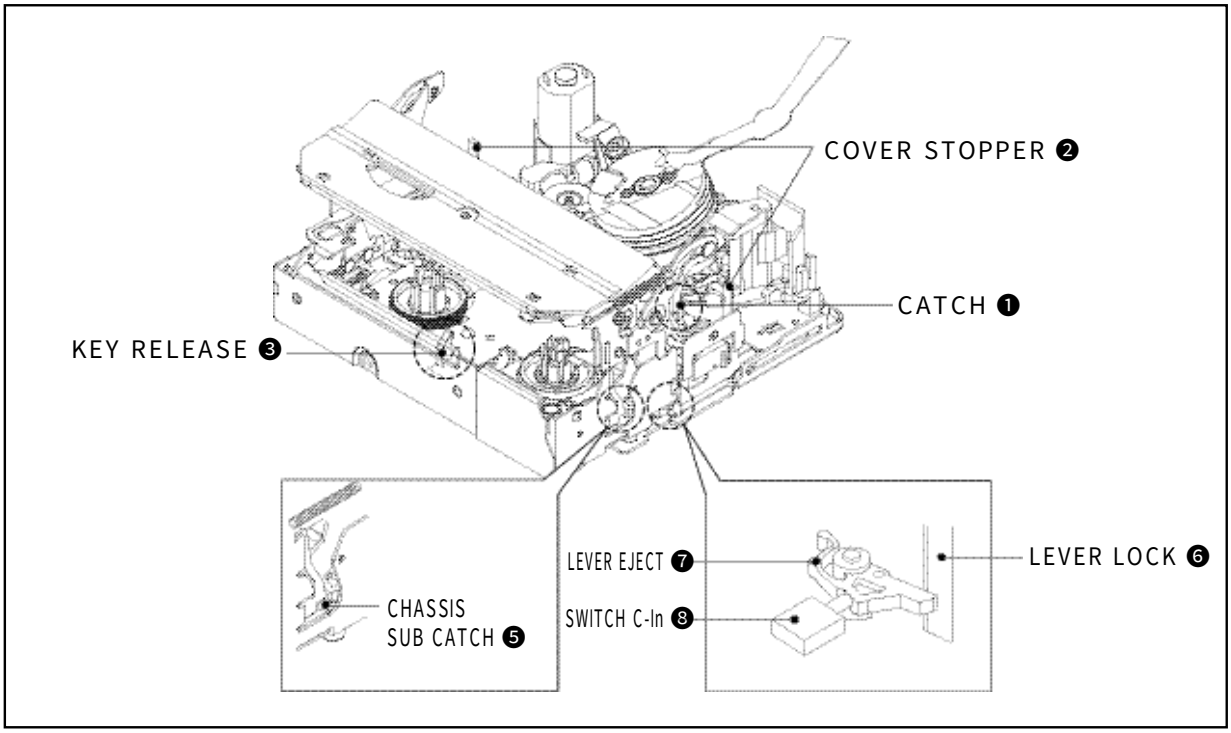
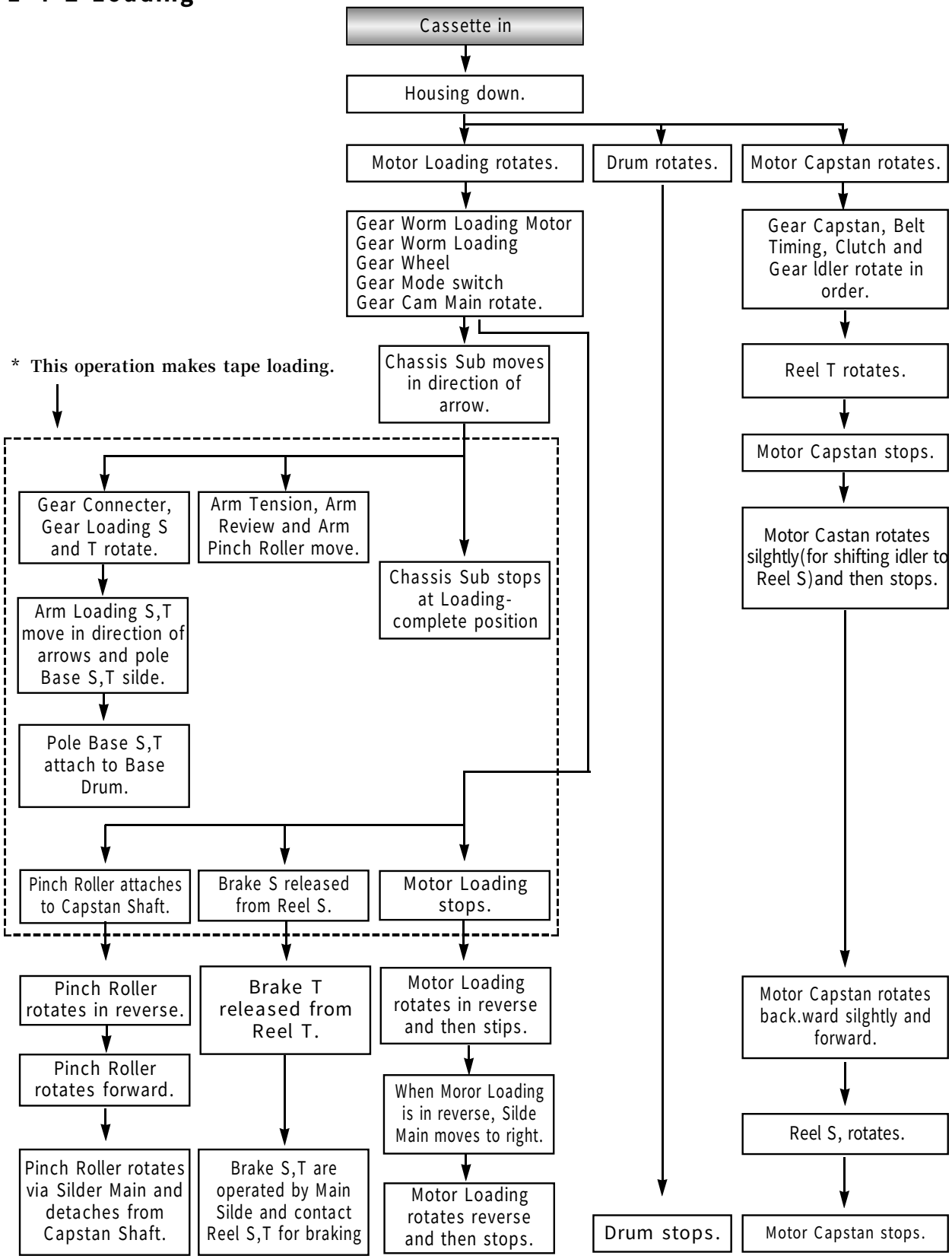


FIG 1-13

1-4-2 Loading


Cassette in
Housing down.
Motor Loading rotates.
Drum rotates.
Motor Capstan rotates.
Gear Worm Loading Motor
Gear Worm Loading
Gear Wheel
Gear Mode switch
Gear Cam Main rotate.
Gear Capstan, Belt Timing, Clutch and Gear ldler rotate in order.
* This operation makes tape loading.
Chassis Sub moves in direction of arrow.
Reel T rotates.
Motor Capstan stops.
Gear Connecter, Gear Loading S and T rotate.
Arm Tension, Arm Review and Arm Pinch Roller move.
Chassis Sub stops at Loading-complete position
Motor Castan rotates silghtly(for shifting idler to Reel S)and then stops.
Arm Loading S,T move in direction of arrows and pole Base S,T silde.
Pole Base S,T attach to Base Drum.
Pinch Roller attaches to Capstan Shaft.
Brake S released from Reel S.
Motor Loading stops.
Pinch Roller rotates in reverse.
Brake T released from Reel T.
Motor Loading rotates in reverse and then stips.
Motor Capstan rotates back.ward silghtly and forward.
Pinch Roller rotates forward.
When Moror Loading is in reverse, Silde Main moves to right.
Reel S, rotates.
Pinch Roller rotates via Silder Main and detaches from Capstan Shaft.
Brake S,T are operated by Main Silde and contact Reel S,T for braking
Motor Loading rotates reverse and then stops.
Drum stops.
Motor Capstan stops.

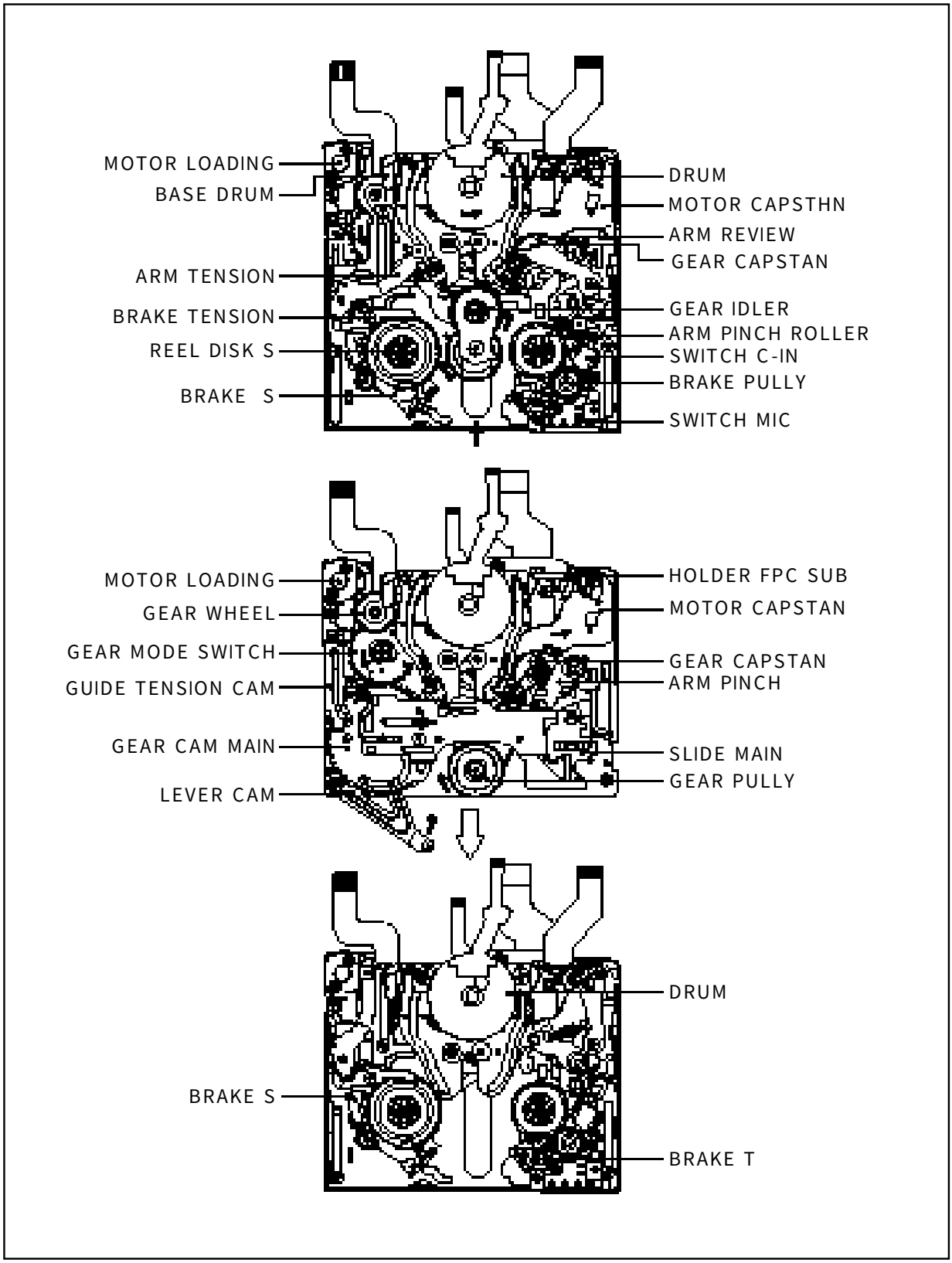
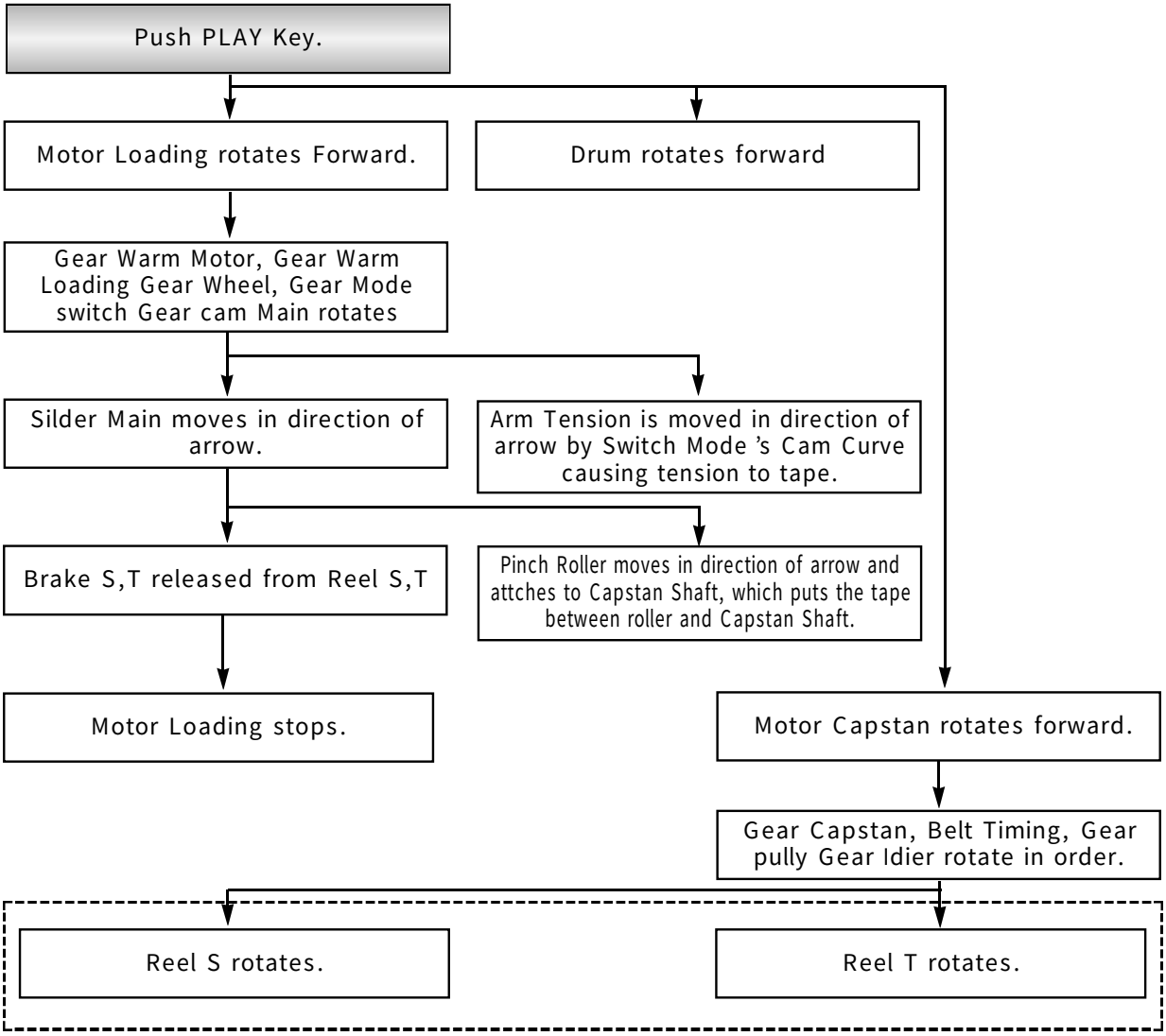

MOTOR LOADING
BASE DRUM
ARM TENSION
BRAKE TENSION
REEL DISK S
BRAKE S
DRUM
MOTOR CAPSTHN
ARM REVIEW
GEAR CAPSTAN
GEAR IDLER
ARM PINCH ROLLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
ARM PINCH
SLIDE MAIN
GEAR PULLY
BRAKE S
DRUM
BRAKE T

Fig 1-14

1-4-3 Stop → Play


Push PLAY Key.
Motor Loading rotates Forward.
Drum rotates forward
Gear Warm Motor, Gear Warm Loading Gear Wheel, Gear Mode switch Gear cam Main rotates
Silder Main moves in direction of arrow.
Arm Tension is moved in direction of arrow by Switch Mode 's Cam Curve causing tension to tape.
Brake S,T released from Reel S,T
Pinch Roller moves in direction of arrow and attches to Capstan Shaft, which puts the tape between roller and Capstan Shaft.
Motor Loading stops.
Motor Capstan rotates forward.
Gear Capstan, Belt Timing, Gear pully Gear Idier rotate in order.
Reel S rotates.
Reel T rotates.

*** Tape is fed by the winding operation of Motor Capstan.**

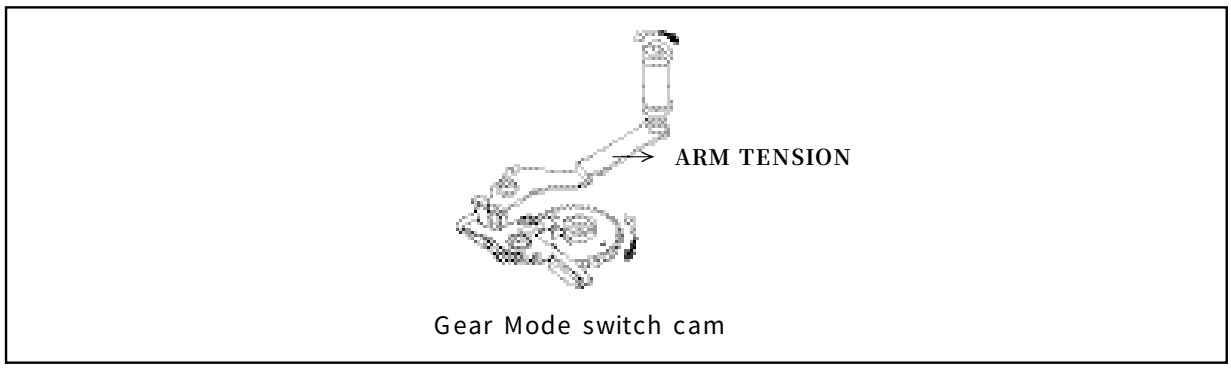


Fig 1-15

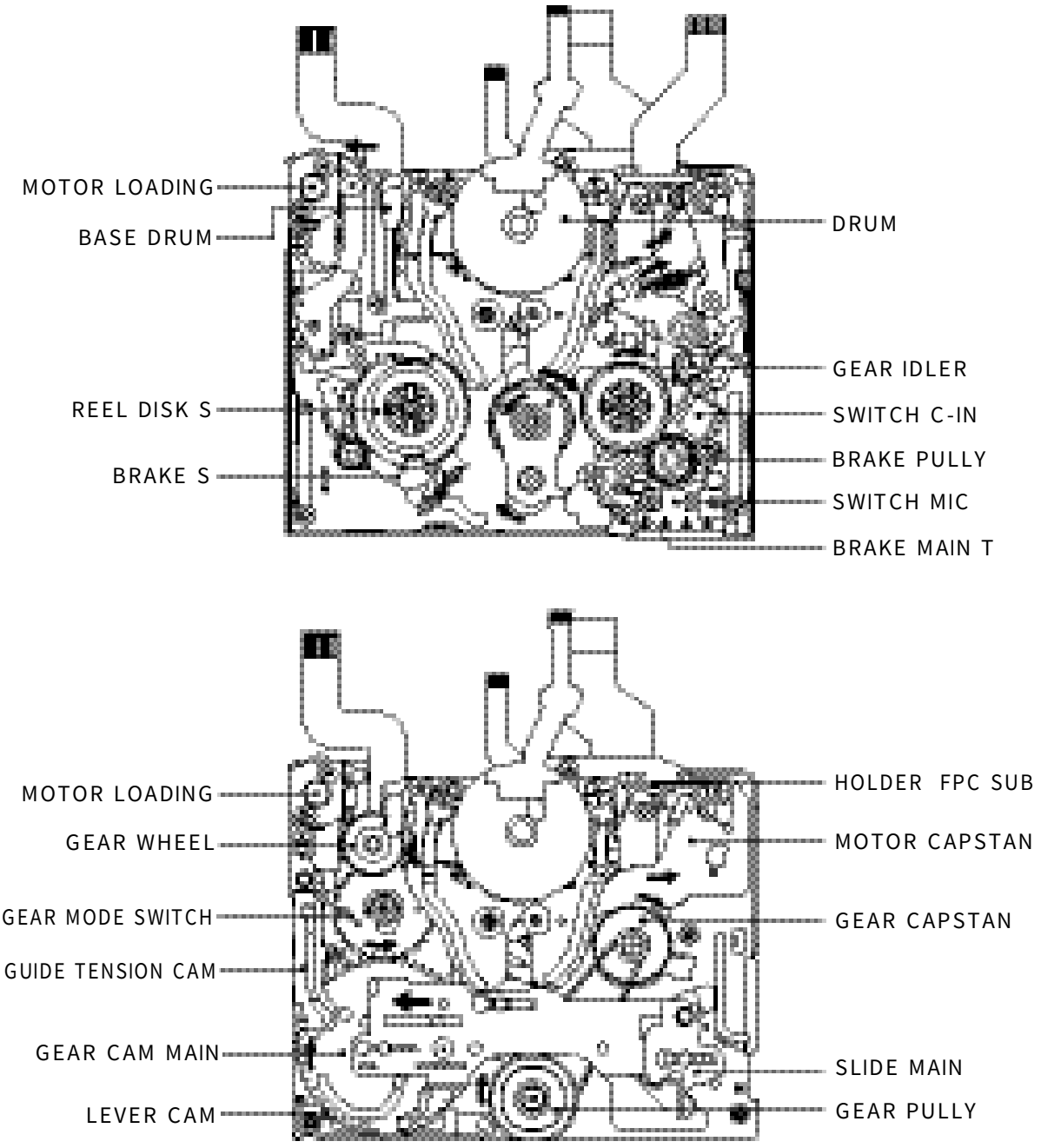
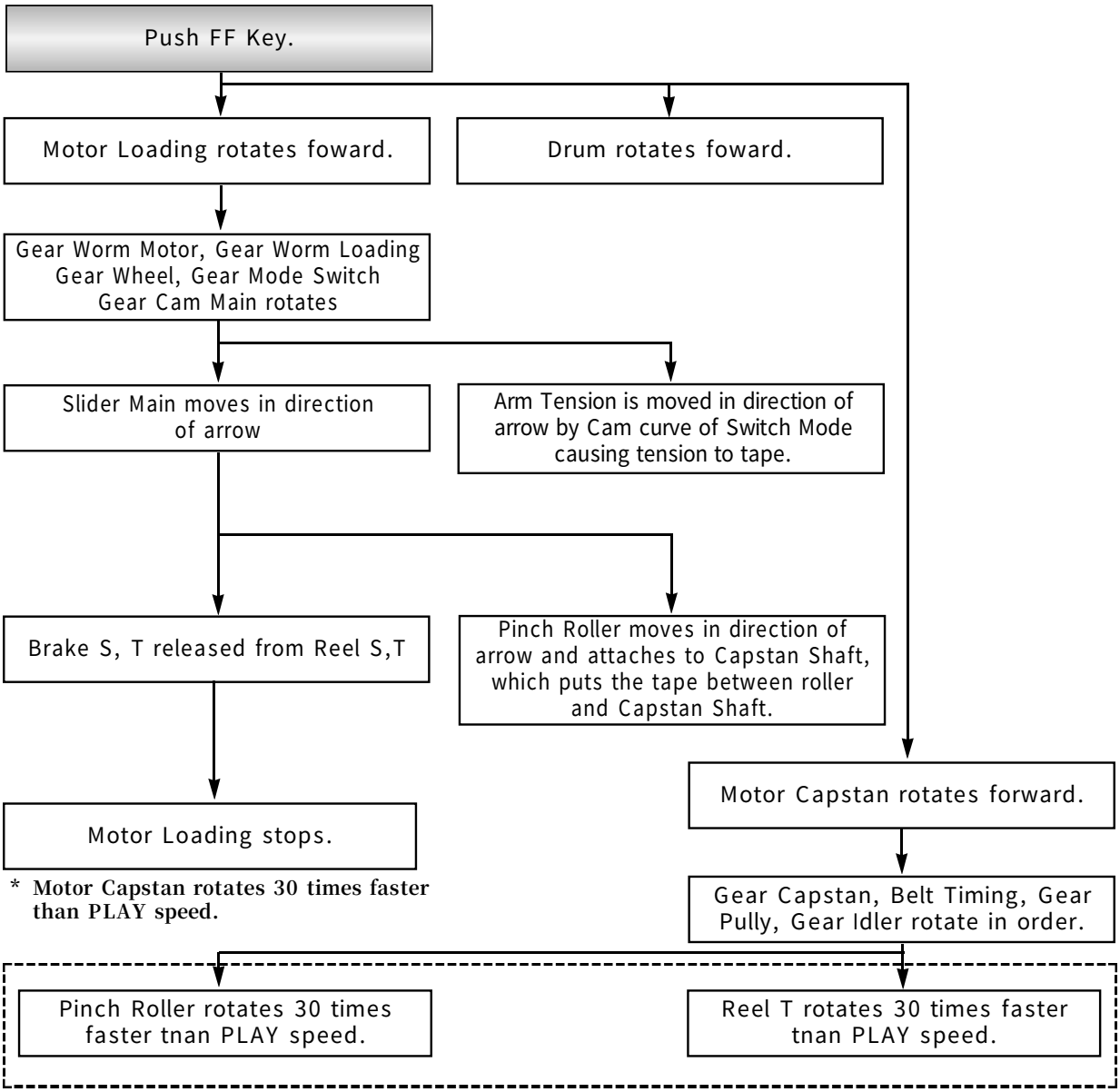

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

fig 1-16

1-4-4 Stop → FF


Push FF Key.
Motor Loading rotates foward.
Drum rotates foward.
Gear Worm Motor, Gear Worm Loading Gear Wheel, Gear Mode Switch Gear Cam Main rotates
Slider Main moves in direction of arrow
Arm Tension is moved in direction of arrow by Cam curve of Switch Mode causing tension to tape.
Brake S, T released from Reel S,T
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft, which puts the tape between roller and Capstan Shaft.
Motor Capstan rotates forward.
Motor Loading stops.
* Motor Capstan rotates 30 times faster than PLAY speed.
Gear Capstan, Belt Timing, Gear Pully, Gear Idler rotate in order.
Pinch Roller rotates 30 times faster tnan PLAY speed.
Reel T rotates 30 times faster tnan PLAY speed.

* This operation feeds tape 30 times faster than PLAY speed.

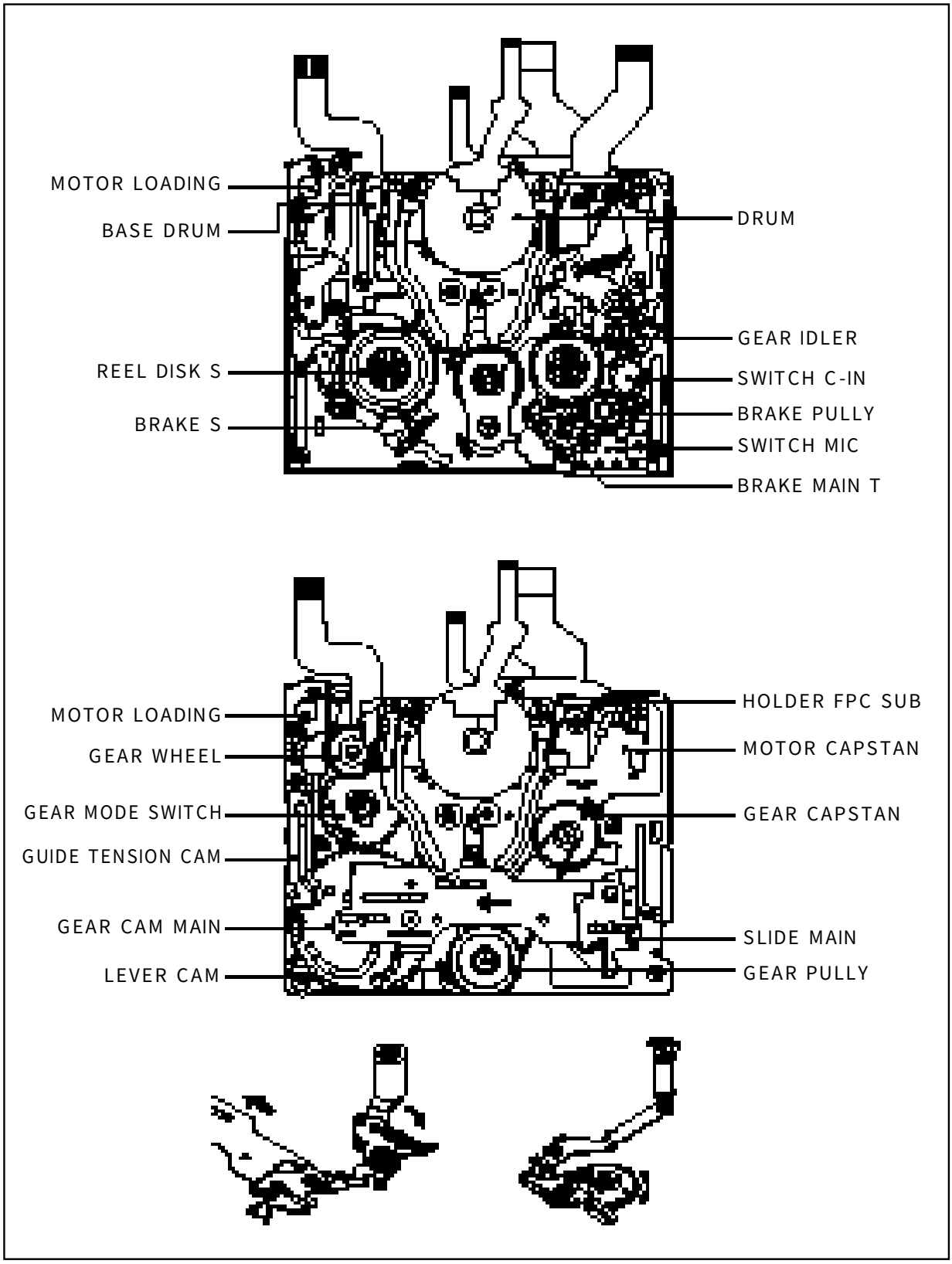
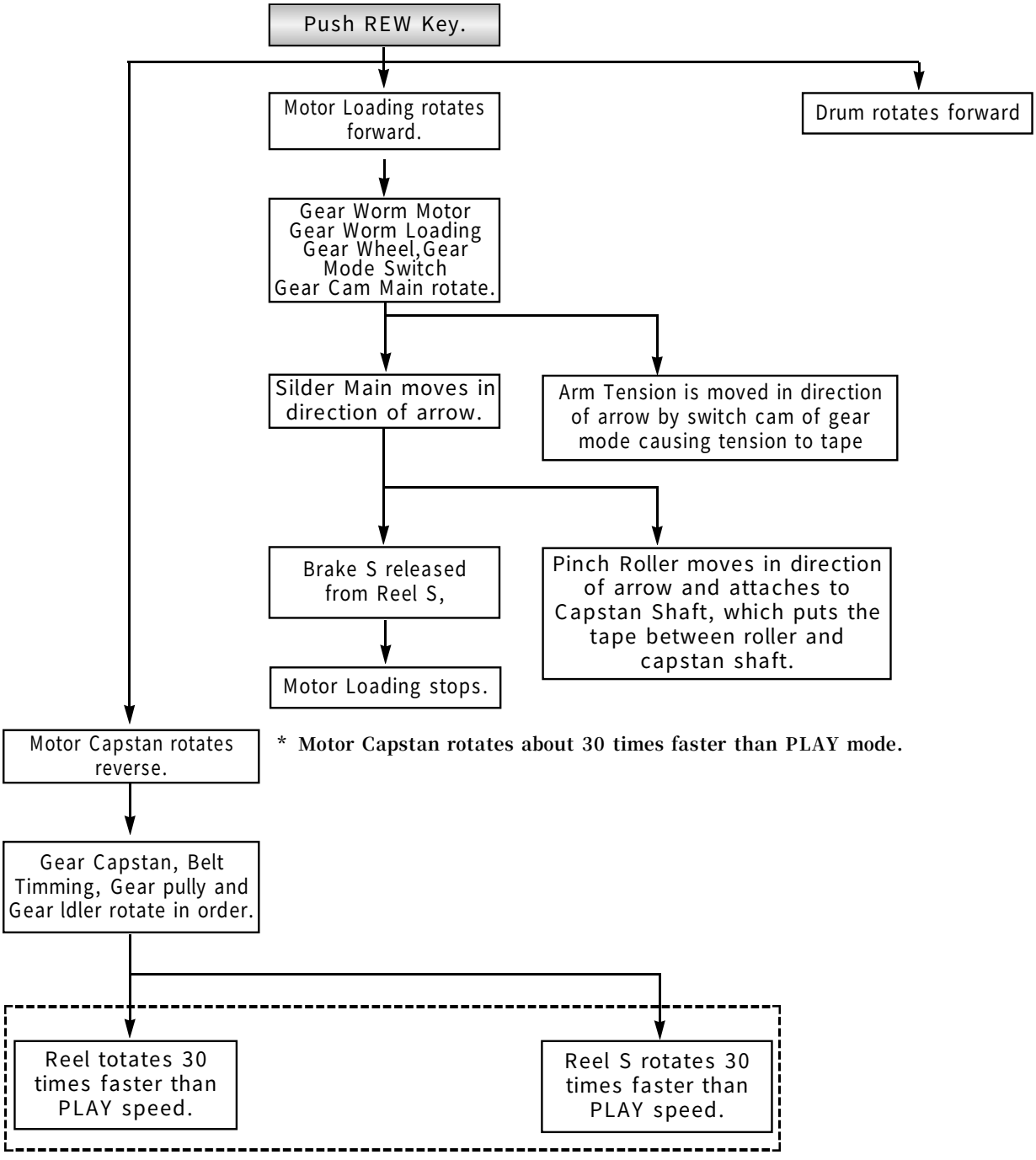

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-17

1-4-5 Stop → REW


Push REW Key.
Motor Loading rotates forward.
Drum rotates forward
Gear Worm Motor Gear Worm Loading Gear Wheel,Gear Mode Switch Gear Cam Main rotate.
Silder Main moves in direction of arrow.
Arm Tension is moved in direction of arrow by switch cam of gear mode causing tension to tape
Brake S released from Reel S,
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft, which puts the tape between roller and capstan shaft.
Motor Loading stops.
Motor Capstan rotates reverse.
* Motor Capstan rotates about 30 times faster than PLAY mode.
Gear Capstan, Belt Timming, Gear pully and Gear ldler rotate in order.
Reel totates 30 times faster than PLAY speed.
Reel S rotates 30 times faster than PLAY speed.

* This operation feeds tape 30 times faster than PLAY mode.

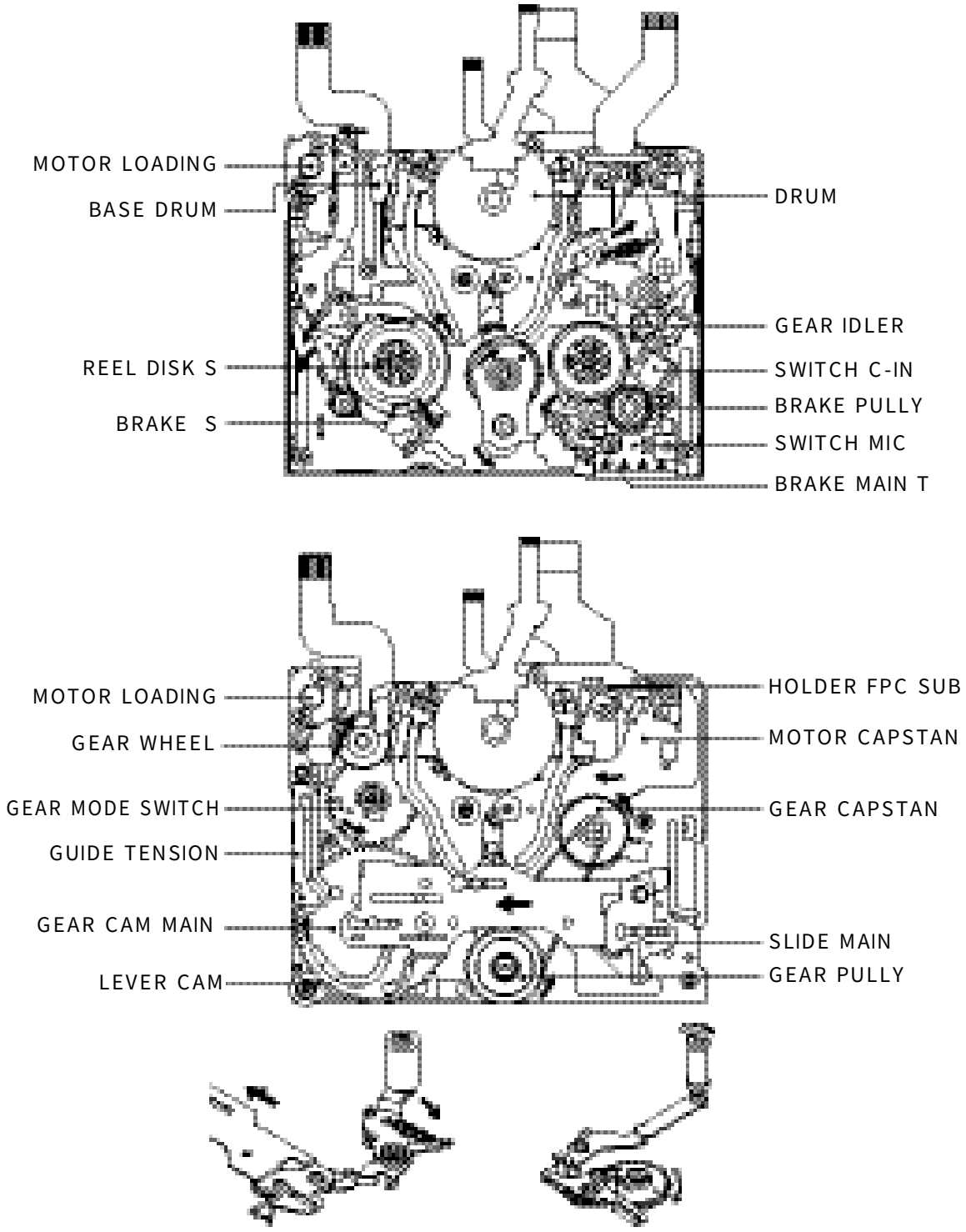
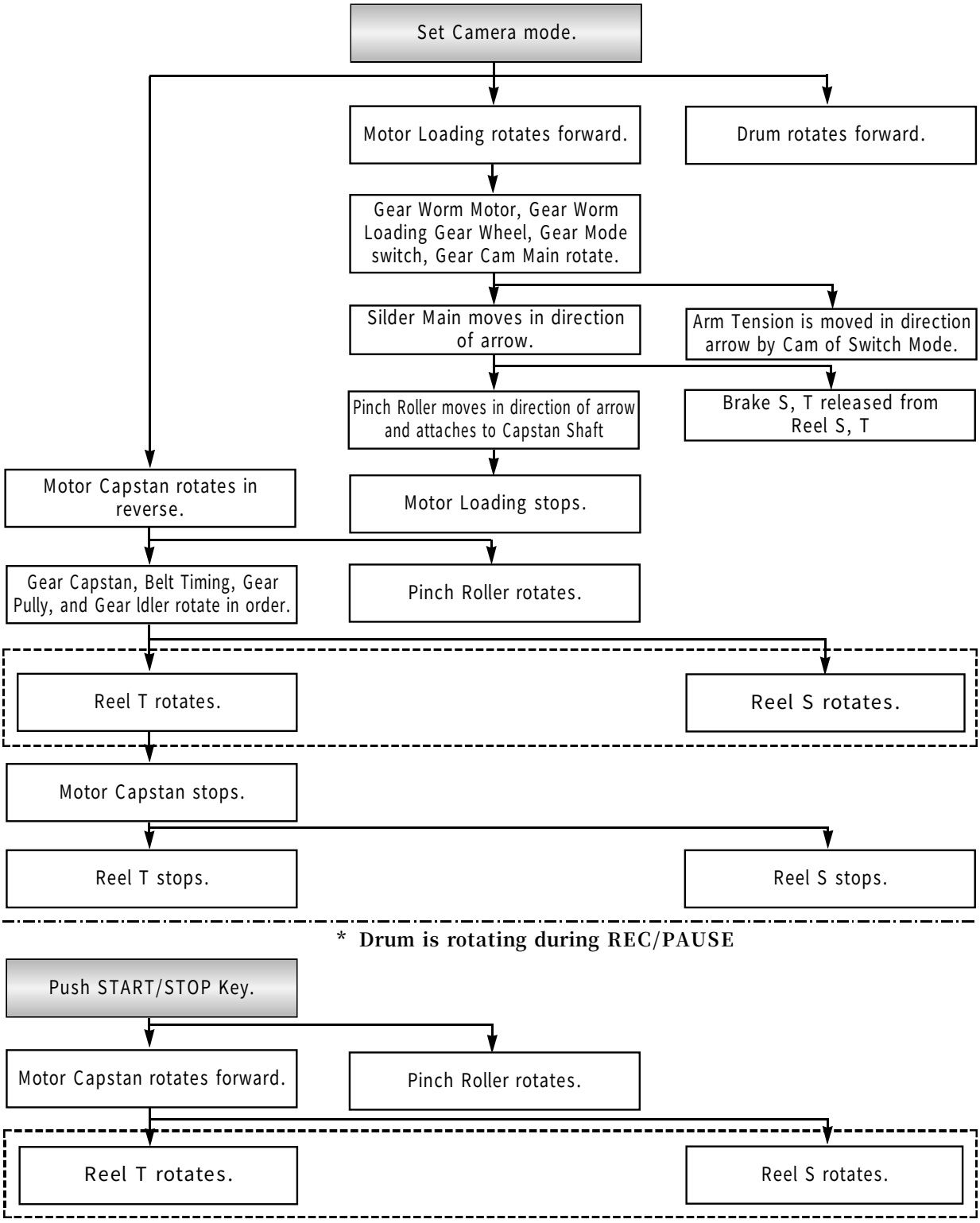

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-18

1-4-6 Stop → REC


Set Camera mode.
Motor Loading rotates forward.
Drum rotates forward.
Gear Worm Motor, Gear Worm Loading Gear Wheel, Gear Mode switch, Gear Cam Main rotate.
Silder Main moves in direction of arrow.
Arm Tension is moved in direction arrow by Cam of Switch Mode.
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft
Brake S, T released from Reel S, T
Motor Capstan rotates in reverse.
Motor Loading stops.
Gear Capstan, Belt Timing, Gear Pully, and Gear ldler rotate in order.
Pinch Roller rotates.
Reel T rotates.
Reel S rotates.
Motor Capstan stops.
Reel T stops.
Reel S stops.

*** Drum is rotating during REC/PAUSE**

*** Tape is wound to Reel T by this operation.**

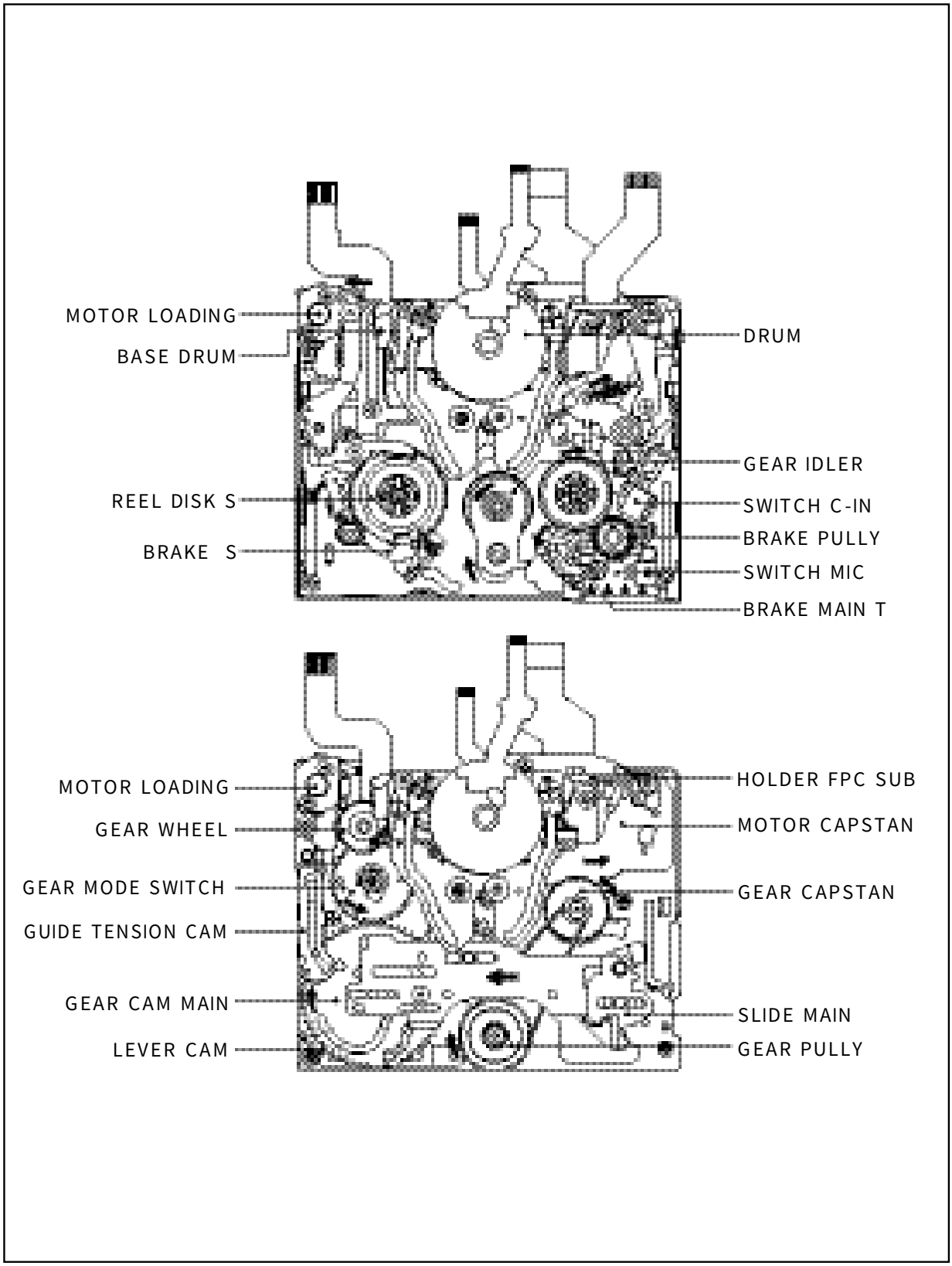
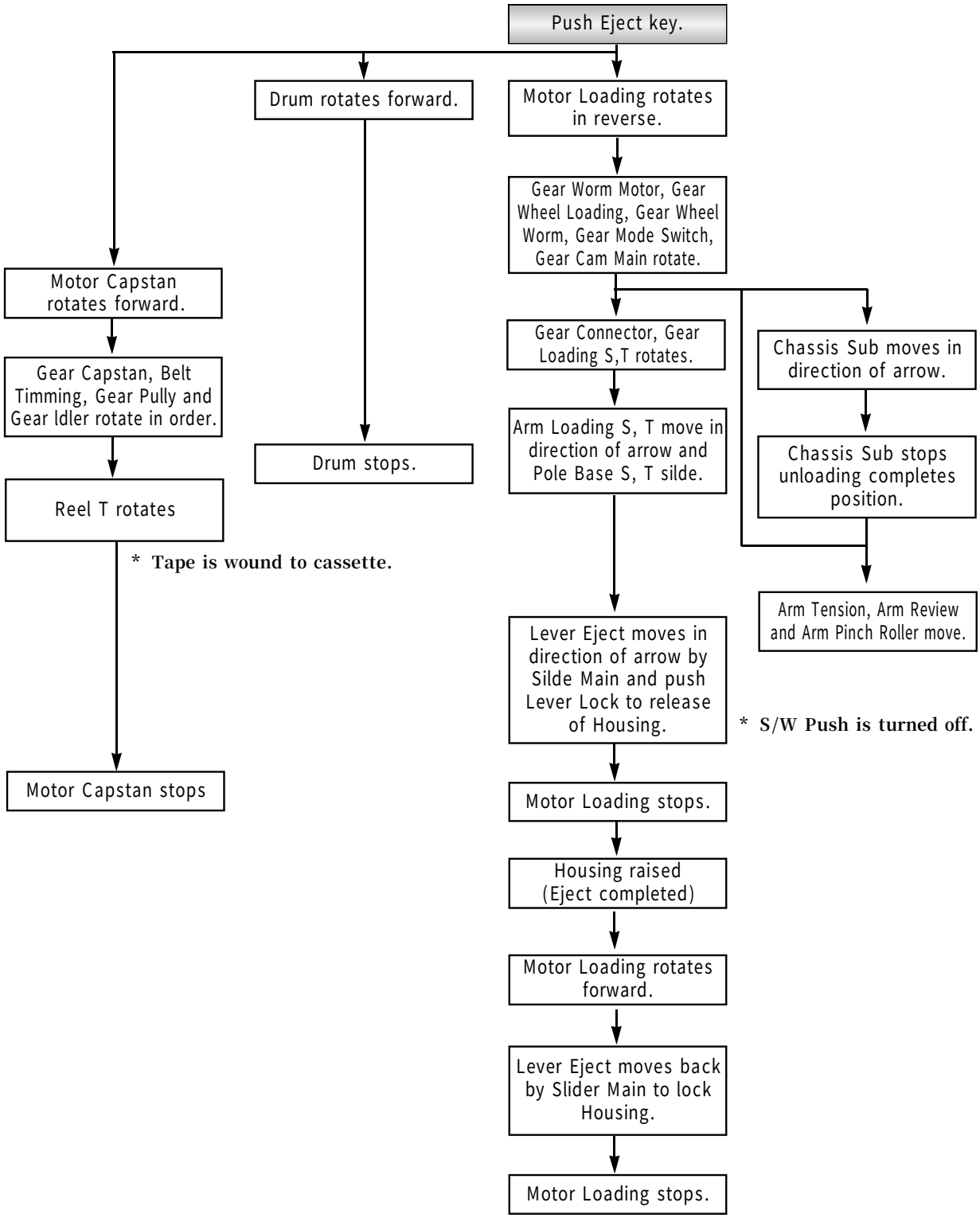

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-19

1-4-7 Stop → Unload


Push Eject key.
Drum rotates forward.
Motor Loading rotates in reverse.
Gear Worm Motor, Gear Wheel Loading, Gear Wheel Worm, Gear Mode Switch, Gear Cam Main rotate.
Motor Capstan rotates forward.
Gear Capstan, Belt Timming, Gear Pully and Gear Idler rotate in order.
Reel T rotates
* Tape is wound to cassette.
Motor Capstan stops
Drum stops.
Gear Connector, Gear Loading S,T rotates.
Arm Loading S, T move in direction of arrow and Pole Base S, T silde.
Chassis Sub moves in direction of arrow.
Chassis Sub stops unloading completes position.
Arm Tension, Arm Review and Arm Pinch Roller move.
Lever Eject moves in direction of arrow by Silde Main and push Lever Lock to release of Housing.
* S/W Push is turned off.
Motor Loading stops.
Housing raised (Eject completed)
Motor Loading rotates forward.
Lever Eject moves back by Slider Main to lock Housing.
Motor Loading stops.

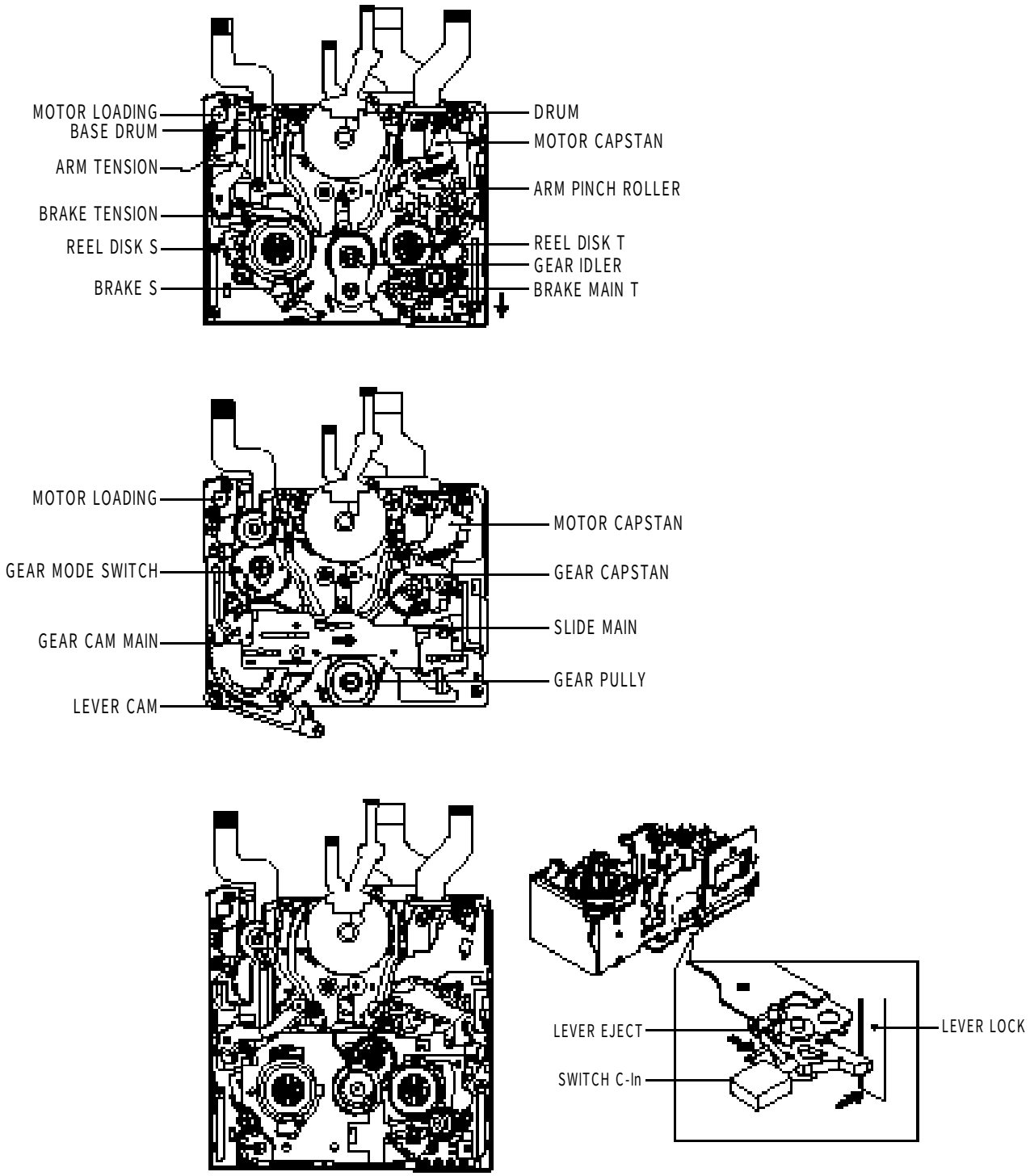
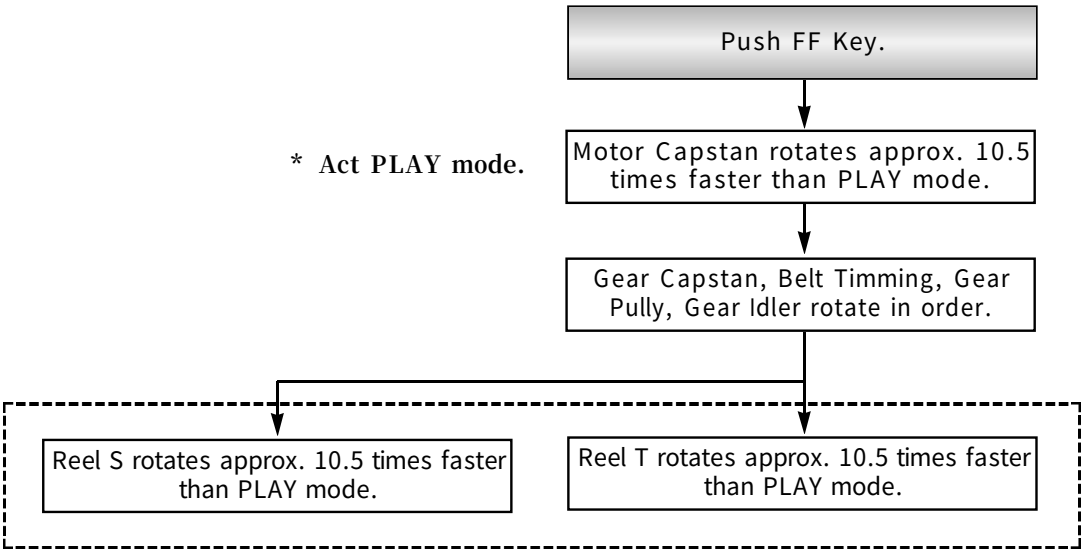

MOTOR LOADING
BASE DRUM
ARM TENSION
BRAKE TENSION
REEL DISK S
BRAKE S
DRUM
MOTOR CAPSTAN
ARM PINCH ROLLER
REEL DISK T
GEAR IDLER
BRAKE MAIN T
MOTOR LOADING
GEAR MODE SWITCH
GEAR CAM MAIN
LEVER CAM
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY
LEVER EJECT
SWITCH C-In
LEVER LOCK

Fig 1-20

1-4-8 CUE


Push FF Key.
* Act PLAY mode.
Motor Capstan rotates approx. 10.5 times faster than PLAY mode.
Gear Capstan, Belt Timming, Gear Pully, Gear Idler rotate in order.
Reel S rotates approx. 10.5 times faster than PLAY mode.
Reel T rotates approx. 10.5 times faster than PLAY mode.

* Tape fed by Motor Capstan is wound up to Reel T.

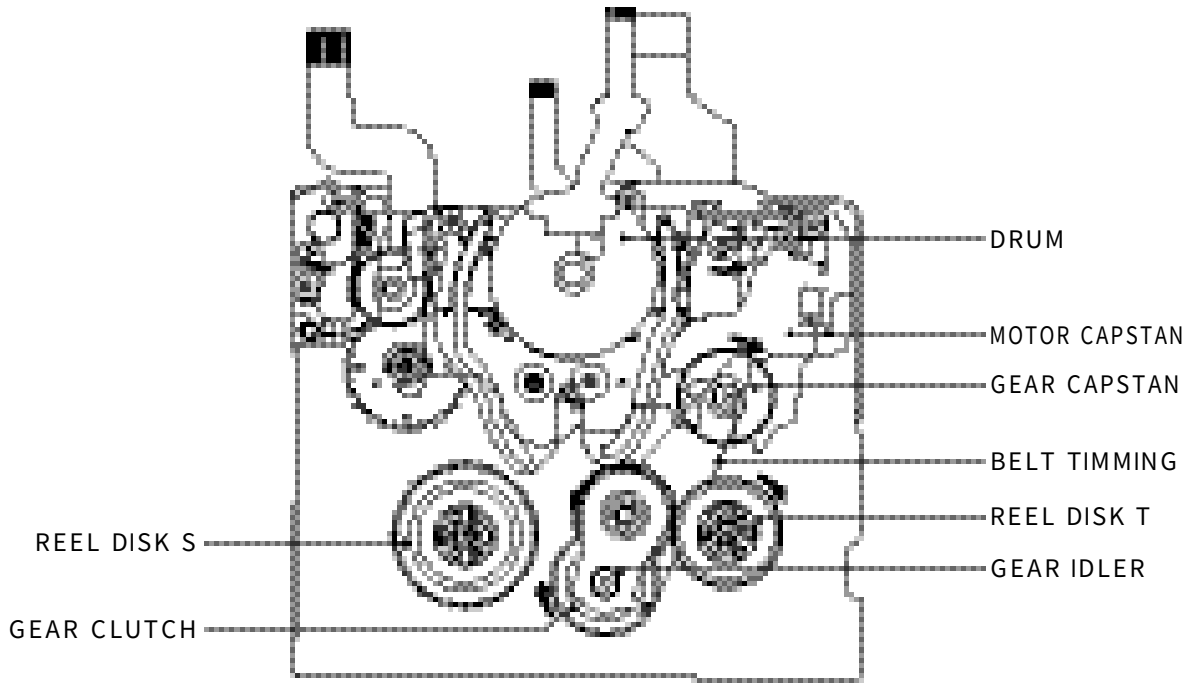
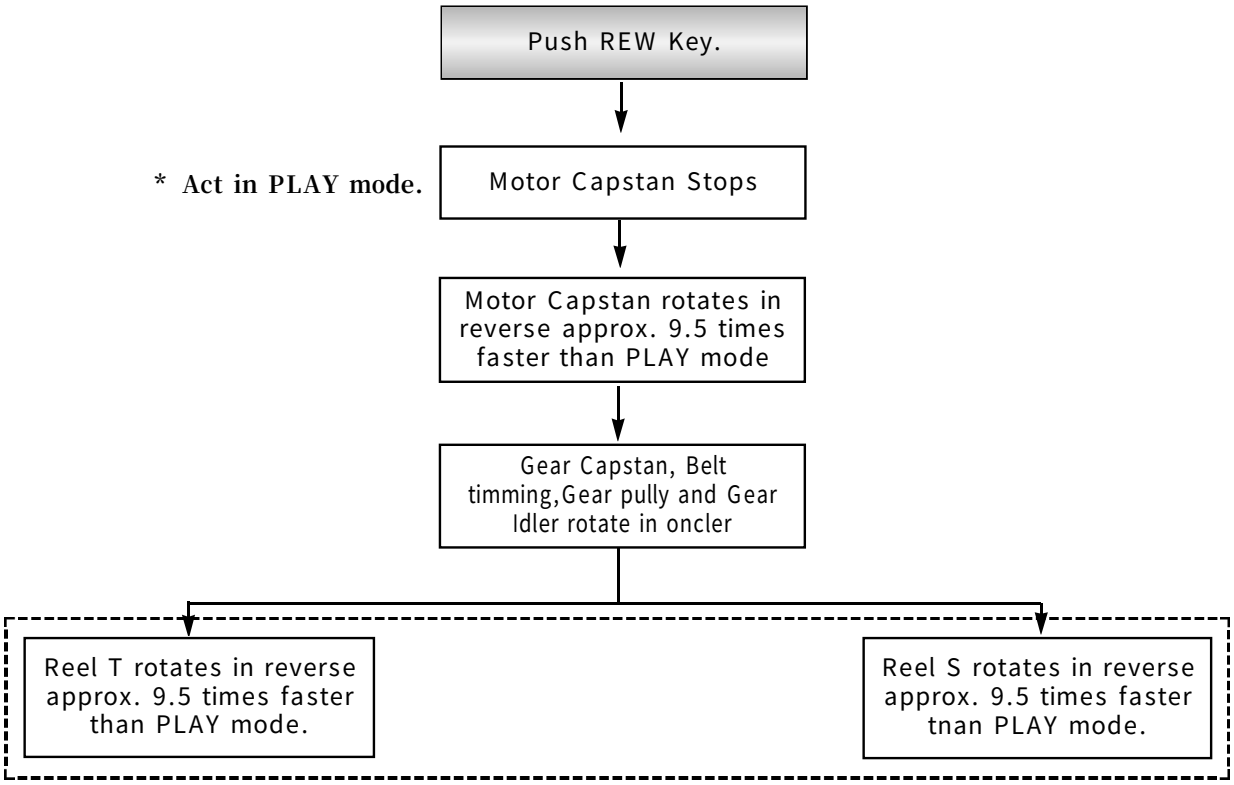

DRUM
MOTOR CAPSTAN
GEAR CAPSTAN
BELT TIMMING
REEL DISK T
GEAR IDLER
REEL DISK S
GEAR CLUTCH

Fig 1-21

1-4-9 REW


Push REW Key.
* Act in PLAY mode.
Motor Capstan Stops
Motor Capstan rotates in reverse approx. 9.5 times faster than PLAY mode
Gear Capstan, Belt timming,Gear pully and Gear Idler rotate in oncler
Reel T rotates in reverse approx. 9.5 times faster than PLAY mode.
Reel S rotates in reverse approx. 9.5 times faster tnan PLAY mode.

* Tape fed by Motor Capstan is wound up to Reel S.

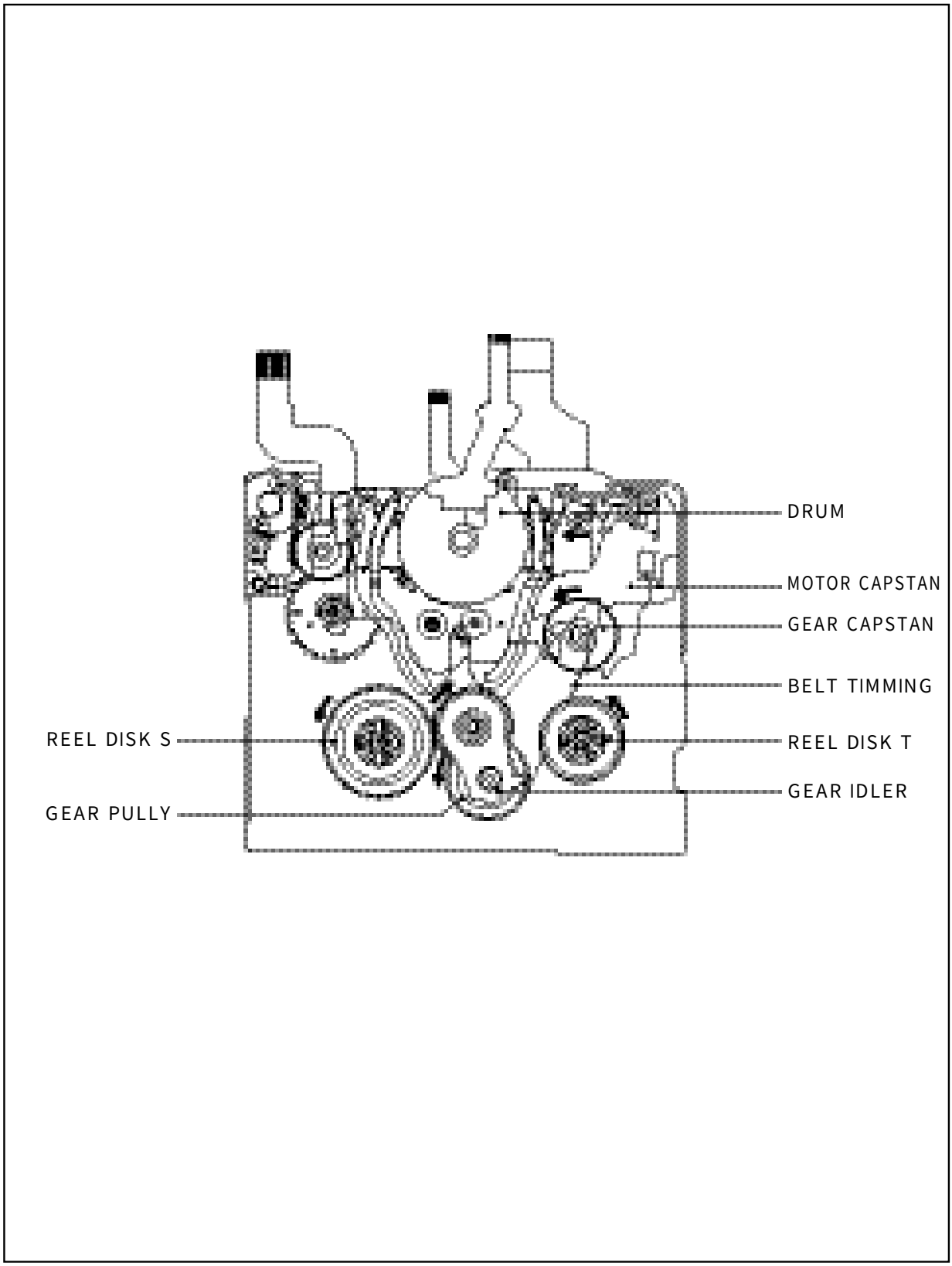

DRUM
MOTOR CAPSTAN
GEAR CAPSTAN
BELT TIMMING
REEL DISK S
REEL DISK T
GEAR IDLER
GEAR PULLY

Fig 1-22

MEMO